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the 1981
White House
Conference
on
Aging

Report of
Technical Committee
on
HEALTH MAINTENANCE
& HEALTH PROMOTION

NOTE: The recommendations of this document are not recommendations of the 1981 White House Conference on Aging, or the Department of Health and Human Services. This document was prepared for the consideration of the Conference delegates. The delegates will develop their recommendations through the processes of their national meeting in late 1981.

TECHNICAL COMMITTEE MEMBERS

Seymour M. Farber, MD
Vice Chancellor Emeritus
University of California, SF

Theodore Cooper, M.D., Ph.D.
Executive Vice President
The UpJohn Company
Former Assistant Secretary for Health
Department of Health, Education, and Welfare

Mother Bernadette, O. Carm., ACSW
Adminsitrator and Member of Board of Directors
Carmelite Homes for the Aged and Infirm, CT

Margaret A. Ohlson, Ph.D.
Past President
American Diabetic Association

Larry Wright, MD
Rural Family Practitioner
Rogers Medical Center, AK

Arin Chwalow, Dr. P.H., RN
Assistant Professor, Division of Health Education
School of Hygiene & Public Health
Johns Hopkins University, MD

Barbara Silverstone, DSW
Executive Director
The Benjamin Rose Institute
Cleveland, OH
Chairman, Committee on Aging,
NASW

Francisco Trilla, MD
CABS Nursing Home -
Brooklyn, NY

Edna Chavis, Ph.D.
Missouri Division on Aging

COMMITTEE STAFF, CONSULTANTS, EXPERTS

Lester Breslau, MD, MPH, Consultant
(Public Health)
University of California (L.A.)

Gene D. Cohen, MD, Consultant
(Mental Health & Aging)
National Institute on Mental Health

Harold J. Dame, MPH, Consultant
(Linkage Program)
Health Services Administration

Sidney Epstein, DDS, Consultant
University of California (S.F.)

Barry Lebowitz, Ph.D., Consultant
National Institute on Mental Health

Mary Beth Minden, Ph.D., Consultant
(Nutrition)
Former Director, Human Nutrition and Consumer Use Programs
U.S. Department of Agriculture

Merideth A. Minkler, Dr. P.H.
Consultant
University of California (Berkeley)

Richard V. Phillipson, MD, FRC
Psychiatric Consultant
National Institute on Drug Abuse

Frederick L. Richardson, MD, FRCP
CP, Consultant
(Rehabilitation)

Bunny Stalpes, MS, Consultant
The Benjamin Rose Institute

Jane A. Taylor, Ph.D., Consultant
(Alcoholism)
National Institute on Alcohol Abuse and Alcoholism

Peter L. Petrakis, Ph.D., MPH
Consultant

Joyce G. Poulsen
White House Conference on Aging Staff

Roberto Anson
White House Conference on Aging Staff

Theodore Totman
White House Conference on Aging Staff

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INTRODUCTION: HEALTH STATUS OF THE OLDER POPULATION; MAJOR DISEASE ENTITIES WHERE HEALTH MAINTENANCE AND HEALTH PROMOTION CAN PLAY A ROLE

Seymour M. Farber, M.D., B.A.
University of California, San Francisco

Peter L. Petrakis, Ph.D., M.P.H.
Editorial Consultant

Mother M. Bernadette, O. Carm., A.C.S.W.
Carmelite Sisters for the Aged and Infirm

THE HEALTH STATUS OF THE OLDER POPULATION

Aging is a lifelong process characterized by a gradual decline in functional reserves. Because of this, the elderly are more likely than any other population group to suffer from multiple, chronic, and often disabling conditions. The Surgeon General's Report on Health Promotion and Disease Prevention (1979) points out that 80 percent of older people have one or more chronic conditions and their medical treatment accounts for about 30 percent of the Nation's health care expenditures.

More Americans are living to old age than ever before in our history. In 1900 only 4 percent of the population were 65 years and older; today 11 percent (24 million people) are. The trend will continue: by 2030, 50 years from now, nearly one in five Americans—50 million people—will be 65 years or older.

These trends pose an unprecedented challenge to the Nation: as more millions of Americans reach and exceed the biblical lifespan of "three score and ten," the traditional approach of waiting for people to get sick and then present themselves to the medical care system becomes more and more inadequate and far too costly. The Health Maintenance and Health Promotion Technical Committee strongly believes that preventing illness in late life and making the added years as rewarding and as healthful as possible is the wisest, most cost effective, and most humane approach to health care for our growing older population.

What is health in late life? Early in its deliberations the Committee, realizing that the greatest fear of older people is being helpless, useless, sick, or unable to care for themselves, adopted the following definition of health in an older person:

> Health is the ability to live and function in society and to exercise maximum self-reliance and autonomy. It is not necessarily total freedom from disease.

Fortunately, the majority of the elderly are vigorous, independent, and live in their own homes. Although it is gratifying that only 5 percent live in institutions and many of these are there only temporarily to recover from illness, the national cost of this form of care is staggering nevertheless: $16 billion in 1979 and a projected $21.6 billion in 1980. Furthermore, individuals 65 years and over have a 20 percent chance of being admitted to a nursing home, and individuals over 80 are much more likely to die in nursing homes than in their own homes. About 45 percent of the elderly are limited in their activity by heart conditions, arthritis, mental disorders, and other conditions. Finally, the 95 percent of Americans over 65 who live at home face ever-increasing risks of physical and mental decline and institutionalization as they grow older. For these reasons, the Committee believes that a strong national commitment to health maintenance and health promotion is essential to prolong as much as possible the period of independence, productivity, and happiness in our growing older population.

Although geriatrics (the medical specialty dealing with the diseases of old age) and gerontology (the systematic study of the biomedical, social, and behavioral aspects of aging) are becoming increasingly prominent disciplines, a persistent and pervasive negativism adversely affects the quality of all services to older individuals (Besdine and Wetle 1980). The Committee's report confirms that this negativism pervades even the health professions.

Our health care system, perhaps the best in the world in treating people who are critically ill and hospitalized, is a passive system—especially for elderly people—and is sadly deficient in efforts aimed at prevention or early detection: it waits for sick people to present themselves before initiating the care process. Unfortunately, as shown in several studies, the elderly themselves tend to accept the prevailing negativism about aging and fail to report illness early; they simply accept potentially treatable problems as an inevitable attribute of "old age."

The passive and largely reactive medical care system, together with the failure of elderly people to report illness in time to prevent sudden deterioration, is in large part responsible for the awesome rise in our Nation's medical bills and for the prevalence of coexisting disorders in elderly people. Several studies have documented that elderly people tend to have multiple pathologies even when they are not obviously ill or are being treated for only one condition. The following problems often coexist in uncomplaining older individuals: congestive heart failure, depression, dementia syndrome, chronic renal failure, angina pectoris, osteoarthritis, osteoporosis, gait disorder, urinary difficulty, constipation, poor blood circulation in the legs, diabetes mellitus, chronic pain, sleep disturbance, multiple drug regimens, and anemia. Coexisting undetected and untreated diseases cause stress in many organs and tissues simultaneously. For a time, compensatory mechanisms preserve normal functions in diseased organs but ultimately the overburdened organs fail, either simultaneously or in cascading fashion, leading to infirmity, dependence, and if not interrupted, to death.

A health care system that waits for health to fail before acting is clearly inadequate and cannot help being enormously expensive. The Health Maintenance and Health Promotion Technical Committee favors a far more active approach with increased emphasis on promoting wellness, on favoring preventive care, on finding ways to keep the elderly in their own homes and communities with maximum independence and freedom of movement rather than institutionalizing them.

The Committe believes that containment of medical costs will be only one benefit of this shift of emphasis. Another, even more important benefit of a national commitment to health maintenance and health promotion for the elderly population will be to enhance the ability of this group, with its vast store of skills and knowledge, to function as a national resource instead of being "put on the shelf." Those basic themes pervade the many topics covered in the Committee's report, which is organized into three broad categories: (1) health maintenance and health promotion services; (2) behavioral issues in health maintenance and health promotion; and (3) special issues in health maintenance and health promotion.

MAJOR DISEASE ENTITIES WHERE HEALTH MAINTENANCE AND HEALTH PROMOTION CAN PLAY A ROLE

Thanks to generous funding for biomedical research over the past 30 years, our Federal health agencies, universities, research institutions, and medical centers have made enormous progress in our ability to treat diseases, including those that afflict the elderly. The Committee believes that research, which is responsible for much of the increase in longevity, should continue and be expanded into new areas.

Research is especially needed in the area of health maintenace and health promotion, where there is a serious lack of knowledge of the kinds of public and private health surveillance structures needed for adequate prevention or early detection efforts for the elderly. The most efficient and humane use of limited resources is early intervention with appropriate services, but this requires careful, regular assessment and monitoring, especially for the elderly at high risk. Much study is needed to determine the most effective ways to accomplish this.

There are many infirmities of old age that can be prevented or delayed by appropriate health maintenance and health promotion. They range from conditions that significantly affect the well-being of the elderly—such as foot disorders, vision and hearing problems, and skin ailments—to the leading causes of disability and death in old age—heart disease, cancer, stroke, arteriosclerosis, diabetes mellitus, and acute respiratory and other infections.

Space does not permit appropriate description of any of the major or minor disease entities that the population has focused on, either through personal experience or through the media. Excellent sources of information are readily available to those who desire a review of disease processes that affect the elderly. The Committee feels that the reader can best be served by turning to these sources. A particularly valuable document is *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention,* which includes an appendix with a comprehensive list of public and private health information sources.

Merely increasing longevity is not enough. The Nation also needs a commitment to health maintenance and health promotion so old age can be a time of maximum independence, unlimited by health problems that are within an individual's ability to control.

Special Note:

The following articles are the distillation of approximately 500 pages of material researched and written by members and consultants of the Health Maintenance and Health Promotion Technical Committee between August 8, 1980 and February 1, 1981. The Committee hopes that its report will guide the deliberations of delegates to the 1981 White House Conference on Aging. Although most of the articles contain numerous citations of the literature on aging, reference lists are not included in order to keep the report as brief as possible. However, the reference lists are available on request.

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THE PHYSICAL AND SOCIAL ENVIRONMENTS

Barbara Silverstone, D.S.W.
Benjamin Rose Institute

I. Introduction

Physical and social environments conducive to the maintenance and promotion of health are essential for maximum functional independence in the elderly. This report focuses specifically on the adaptation of individuals in constant interaction with all aspects of their environment. A social welfare environment has been defined as the social and health service system of a community. The physical environment can facilitate health maintenance in the elderly by its direct impact on the individual. It includes housing, transportation, barrier-free designs, and pollution.

II. The Present Situation

The Physical Environment

Housing

As many as 10 percent of older persons may be living in old and often substandard housing that adversely affects their health, but the generally low income of the elderly (half that of all other households) makes repair difficult or impossible. It is highly likely that some elderly, especially those who live alone, would not remain homeowners if they had alternatives. The construction of new congregate housing units has been a longstanding HUD program and is popularly viewed as one of the best alternatives to institutionalization (U.S. HUD 1979).

Transportation

Although adequate transportation is important for health maintenace, a third of the poor elderly and virtually all rural elderly have serious transportation difficulties. Furthermore, most public transit vehicles are designed for people with normal vigor, though millions of elderly people do not fit this description (U.S. House of Representatives Select Committee on Aging 1977). Federal efforts to improve the situation have taken the form of 1) better transportation scheduling and system designs to accommodate the handicapped and 2) alternative systems that provide more flexible services required by elderly persons (Golant 1979; Institute of Public Administration and Ecosometrics 1980; U.S. House of Representatives Select Committee on Aging 1977).

Barrier-Free Design

Since passage of the Architectural Barriers Act in 1964, the Rehabilitation Act of 1973, and the Housing and Community Development Act of 1974 much progress has been made in creating barrier-free environments. The accomplishments can be seen in any public building. Though barrier-free environments are expensive if they are incorporated after a system or building is created, their cost is minimal if they are included in the early planning stages. Long-range savings include less costly reliance of the elderly on care providers. More detailed and more enforceable legislation, as well as accountability, specificity, precise definition, and provisions for administration and enforcement are needed at all levels of government.

Pollutants

The HEW Departmental Task Force on Prevention, recognizing that environmental influences in health are pervasive in growing public health problems, made specific recommendations regarding environmental toxicology, including establishment of a National Toxicological Research Center (HEW 1979). This Committee strongly supports these efforts, as well as other governmental efforts like the Environmental Protection Agency, to study, monitor, and control environmental pollutants.

The Social Environment

Physical Fitness

According to Shepard (1978), physical activity can bring about a two-thirds reduction in the number of individuals unable to care for themselves because of physiological aging, reduce mental care by 10 percent through the decreased anxiety and elevated mood resulting from exercise, extend the period of independence by several years, and reduce the number of people requiring residential care by as much as two-thirds. Nevertheless, only 39 percent of Americans over 60 engage in any systematic exercise, largely because of a belief that the need for exercise diminishes with age and is risky after middle age.

The Informal Network

Social isolation is experienced by only a minority of elderly—those who are very old, very disabled, poor, and without relatives (Silverstone and Miller 1980). The majority have substantial interpersonal networks (Silverstone 1978). However, the family, which plays a critical role in relation to health maintenance of the elderly, cannot be taken for granted in the future since families are getting smaller and there will therefore be fewer family members to fill this role. The growing employment of women may also greatly dimish their caregiving roles in the future.

Health and Social Service System

Serious gaps in the American service system are burdening the elderly and their families and are undermining optimal health maintenace. Vladek (1980) notes that half of nursing home residents are inappropriately placed and could be better managed in short-term extensions of acute hospitals. He suggests that instead of doubling nursing home beds by 1985 resources be diverted to community care, respite care, and hospice care. Tentative steps in this direction are now being taken by the Department of Health and Human Services on a demonstration basis. Amendments to the Older Americans Act are further evidence of an interest in broadening community-based services, although uncertain funding will undoubtedly constrain the effort.

Attitudes

Pessimistic views about the potential of aging persons to maintain satisfactory health result in low priorities for improving their physical and social environments. A narrow professional or organizational attitude is also deleterious. Health maintenance is an adaptive balance between the individual and the environment. Therefore a failure in health maintenance should not be viewed only as the result of a person's intrinsic weakness or disabilty but also as the result of thwarting environmental influences. Thus an elderly arthritic who has difficulty climbing stairs might be considered disabled, while one living on the first floor would not.

III. Recommendations

1. Government should assist housing rehabilitation for the elderly, including reverse annuity, property tax relief, low income energy assistance, and special attention to the needs of the underserved rural elderly. Alternatives to home ownership should also be pursued, such as congregate housing with supportive services and low-cost rehabilitation of nonresidential buildings for rental purposes.

2. Transportation systems should be improved to more adequately accommodate the elderly, including creation of alternative systems to provide more flexible service, better rural transportation systems, increased accessibility, and better transportation of goods and services to the elderly.

3. Educational programs should be developed to stress the importance of physical exercise for the elderly.

4. The most crucial element in the social environment is the family and the informal network system. There is a need for family and neighborhood education programs, increased research on the effects of caregiving, and greater attention to the role of the family in health maintenance.

5. It is recommended that all health maintenance costs, whether institutional or community, be examined and redistributed in a more cost effective manner, that the tentative steps that have been taken to expand community-based projects be supported, and that other community-based models of service be explored.

6. Educational programs should be developed by public agencies, voluntary organizations, and the media to combat the stereotype of aging as an irreversible downward process.

INDICATORS OF CHANGE IN PHYSICAL AND MENTAL HEALTH IN LATE LIFE

Larry D. Wright, M.D.
Rogers (Arkansas) Medical Center

Barry D. Lebowitz, Ph.D.
National Institute of Mental Health

I. Introduction

Medical advances of the past 50 years have resulted in faster growth in the over-65 age group than in any other segment of the population. Providing quality health care for our elderly has become one of our great medical challenges. By any standard, the health care of the elderly in the United States must be considered inadequate. The reasons are complex, but the most significant cause is lack of understanding of aging and the clinical aspects of disease in late life, inadequate training on the problems of the elderly, and a health care delivery system that is generally unresponsive to the needs of this segment of our population.

II. Conceptual Framework

Normal aging involves a very gradual decline in the functional efficiency of certain parts of the body. Because of a built-in reserve in the functional capacity of most organ systems, however, the decline typically does not lead to significant disability. To attribute a complaint of physical impairment to "old age" is to place it forever in the category of irreversible and untreatable problems.

Acute illness in early and midlife seldom threatens the physical reserves of healthy people, and disability, if it occurs at all, is usually brief. In an older person with marginal functional reserves, however, even a brief acute illness can stress the body or mind beyond the ability to compensate. Generally, elderly patients of comparable overall health status will be at greater risk of significant physical or mental disability if they are over 85 than if they are 65 to 75 years of age.

III. The Present Situation

Physicians and the elderly themselves have developed a very passive approach to health care problems of old age. This is partly due to basic misconceptions about the problems and to a strong orientation in American medical education toward acute rather than chronic disorders. Despite great gaps in our biomedical knowledge of aging, enough is known to expose some basic misconceptions. Very little of the physical disability in late life can be attributed simply to growing old. Instead, it is almost always secondary to one or more disease processes.

Appreciation of the unique aspects of health and disease in the elderly has increased with the growth of geriatric medicine. Unfortunately, despite general acceptance of these peculiarities by experts in the field, they have not been recognized by the medical profession in general. Part of the problem is that the vast majority of clinical data on which our understanding of disease is based have been derived from study of young and middle-age populations. Painless heart attacks, spontaneous bone fractures, and infections without fever are common in the elderly but are frequently overlooked.

The elderly also have a markedly higher incidence of mental illness. Eighteen to 25 percent of older persons have significant mental health symptoms, but it is not generally appreciated that as many as 20 percent of such cases may be secondary to reversible causes. For example, behavioral changes can result from impaired nutritional status, especially deficiencies of certain B-vitamins and folic acid. Depression is also a significant health problem in late life, with a prevalence of about 10 percent in noninstitutionalized persons over 65. The rate among institutionalized elderly is much higher. Even more alarming is the high suicide rate among older persons; nearly 25 percent of suicides are committed by people 60 years old and over.

Although mental and physical health are interrelated at all ages, the link is most striking in late life. The mental health of elderly patients is frequently impaired by somatic illness, sometimes dramatically. Confusion is commonly the first or most prominent feature of a significant acute illness such as infection, heart failure, and kidney dysfunction, especially in the very old.

The nutritional aspects of health in late life cannot be overemphasized. Lean body mass diminishes in late life, resulting in less need for calories and a greater likelihood of obesity and its associated medical complications. It is even more likely that reduced caloric intake unaccompanied by careful dietary planning will result in inadequate nutrient intake. Elderly at high risk of nutritional deficiency include the isolated, the poor, the recently bereaved, and those who have not been examined by a physician for a long time.

In addition to primary types of physical and mental illness, the elderly are more susceptible to other adverse influences such as drug interactions, inadequate nutrition, environmental relocation, alcohol, and medication misuse. Recognizing and avoiding these influences is crucial to health maintenance in older persons.

Considering the many kinds of stresses older people face and the unique challenges their health care presents, it is remarkable how well most of them adjust. Despite cumulative stresses, dysfunctions, and personal losses most people maintain great mental and physical resiliency to a very old age.

IV. Findings

The signs of illness in older persons may be misleading or too subtle to be detected early and often will be the same as those arising from a change in mental, social, or nutritional condition. Thus a new finding of fatigue, mild confusion, or gradual decline in the ability to carry out particular daily activities may be the only sign of significant depression, important social stresses, or serious medical problems like anemia, medication intoxication, endocrine disorder, or occult malignancy. Routine health monitoring of the elderly therefore should include regular inquiry about possible changes in routine functional abilities and everyday activities.

The increased risk of severe illness in late life is aggravated by difficulty in recognizing early signs, which can allow a condition to deteriorate significantly before it is brought to medical attention. It is therefore important to identify the elderly who are at greatest risk, including those who live alone or are otherwise socially isolated, the very old (over 80-85), those with multiple medical problems, and those taking multiple medications. Unfortunately, this group may have less contact with the medical care system than those who are at less risk. Two critical needs for this high risk group can be identified.

(1) Establish a method to identify high risk elderly (name, location of residence, health status, and special needs) so health professionals or agencies can maintain health surveillance and a continuing record of possible changing needs, as well as serve as resource and contact points when problems arise.

(2) Ensure periodic health monitoring to prevent unnecessary disability or premature death from treatable illness.

Early detection of changes in physical and mental health in older individuals can be most effectively accomplished by routine, periodic health assessment by one or more members of multidisciplinary health teams, with more frequent and more comprehensive assessment reserved for the elderly at greatest risk.

Health assessment centers for routine screening of older individuals could have the very positive effect of ensuring appropriate utilization of health services, including the determination of appropriate use of alternatives in long-term care. A comprehensive multidisciplinary health assessment would be a very reasonable prerequisite for nursing home admissions and home health care referral. The centers could also identify patients in need of referral for mental health services, which are greatly underutilized by the elderly. At least initial outpatient psychiatric care for the elderly could also be provided at the same locations, and would have the added advantages of legitimizing mental health care as an integral part of total health care and softening a negative perception of mental illness that is common in older people.

V. Recommendations

This Committee recommends the creation of assessment centers where more extensive multidisciplinary evaluation could be performed on referral. In addition to health assessment, the centers would include health and social services for certain patients as well as health education.

Specific legislation needed to implement this proposal includes the following: 1) include reimbursement under Medicare for comprehensive professional assessment of individual need for care and for assistance in obtaining needed service; 2) extend reimbursement under Medicare to include all prescription drugs, eyeglasses, hearing aids, dental care, and foot care; 3) eliminate the prior hospitalization requirement for home health services reimbursement and broaden covered services for Medicare patients to include day care treatment, health and nutrition education and counseling, and rehabilitation services; 4) eliminate the 190-day lifetime limitation on inpatient care in psychiatric hospitals under Medicare; 5) eliminate the $250 per year outpatient care limitation for physician services for treatment of mental illness and establish a beneficiary coinsurance rate of 20 percent for these services under Medicare; 6) amend Medicare and Medicaid legislation to place the providers of mental health services, specifically Community Mental Health Centers, on an equal basis with the providers of general health services; (7) Health assessment centers should be established for the elderly, with the services reimbursable under Medicare and Medicaid.

REHABILITATION

F. L. Richardson, M.D., FRCP., FRACP.
Veterans Administration and Yale University

I. Introduction

One important consequence of the extension of life is a substantial increase of diseases requiring rehabilitation in the later years. Each year, more than half of the total medical budget of the United States is spent on medical services, primarily rehabilitative, to persons 60 years old and over. The problem will increase as the older population grows. Today, the 24 million people over 65 years of age constitute 11 percent of the population; by the year 2030 they will number 50 million and constitute 17 percent of the population. By that time, the drain on medical care resources will be enormous, unless the Nation learns how to keep a greater proportion of the population healthy and independent.

II. Conceptual Framework

The goal of rehabilitation for all disabilities, acute or chronic, is to help patients attain their maximum potential for normal living. The population of older adults with chronic illness or disability is enormous and their rehabilitation needs are complex. While perseverence, education, family support, and income allow some groups of people to identify and obtain rehabilitation services, other groups such as the poor, those living alone, minorities, and the frail need help and special advocacy. Since premature aging is not uncommon and often occurs because of lifestyle or certain chronic diseases, the target population is determined by functional status as well as by chronological age. Medical and social rehabilitative needs are massive, but responses to those needs are poorly organized and fail to provide effective services.

III. The Present Situation

In 1974, 15 million noninstitutionalized Americans were limited in their major life activities, and almost 7 million were unable to carry on such activities. This population of 21 million, considerably in need of rehabilitation, did not include patients in acute care, extended care, or nursing home facilities (National Center for Health Statistics 1974).

It is not fully realized that veterans will comprise the major portion of the male aged population of the United States for the rest of this century. By 1990, more than half of American males over 66 years will be veterans, and by 1995 the figure will rise to more than 60 percent. The Veterans Administration is a comprehensive health resource to veterans. Increasingly it represents a last resort source of care for all veterans, many of whom do not now use the VA routinely. A dramatic increase in demand for Veterans Administration services due to aging, broadened eligibility, and increasing costs of medical care can be anticipated.

Already, the VA's comprehensive and large rehabilitation medicine services devote their major efforts not to veterans injured in the armed services but to problems in aging such as arthritis, hip fractures, cardiopulmonary disease, or complications of arteriosclerosis. A substantial rehabilitation effort is also devoted to services for alcoholism, drug abuse, and schizophrenia, which place heavy and appropriate demands on the available remedial services. Substantial rehabilitation services are provided to veterans with chronic disease in extended hospital care facilities.

In 1974, 29.3 million persons had limited activity due to chronic disease. About two-thirds of all limited persons were 45 years of age or over and used a disproportionate share of certain medical services and short term hospital days (56 percent by limited-activity chronic disease patients).

It can be stated conclusively that many of the more than 1 million people in nursing homes, as well as candidates for nursing home care, could benefit from independent living. However, a White House Report (1978) stated that because of the lack of extensive coordinated community-based services to aid in independent living, it has been far simpler to place severely handicapped persons in nursing homes. The health picture of the nearly 1 in 200 American nursing home residents is dominated by chronic illness such as heart disease, arthritis, paralysis, sensory impairment, senility, and incontinence. While many of them could benefit from rehabilitation, such services are sparse or nonexistent (National Nursing Home Survey 1979).

A major problem in providing service to the aging population is the lack of rehabilitation care providers—including physicians, psychologists, dentists, nurses, podiatrists, physical therapists, occupational therapists, speech pathologists, audiologists, orthotic and prosthetic technologists, and many others—to deliver the necessary specialized services. This lack is evident both in hospital and community settings.

IV. Trends

Enormous new demands will be made on rehabilitation services as a result of medical advances. These advances will place complex and costly demands on medical services and will result in wasteful and costly failures unless rehabilitation is made an integral part of the health delivery process. The generally attainable life span will be roughly 85 years (range 77-93 years). Longer life expectancy will result in a substantial increase in diseases requiring rehabilitation in older persons. Earlier access to good rehabilitation will help postpone the impact of chronic disease and delay the onset of infirmity and dependence.

V. Key Issues

The field of rehabilitation needs to expand from its traditional role to involve all health care providers. For example, in university medical centers, approximately half of the residents and interns training in major medical specialties will be treating people over the age of 60 when they are in midcareer—by the year 2000, only 19 years away. Their current training does not always reflect this fact, nor is it geared to rehabilitation, health maintenance, or health promotion, even in the patients they treat. Medical treatment settings may be the most obvious but least used settings for preventive health promotion and maintenance measures. Considerable improvement could be achieved by better training of all medical care providers.

Caring for older people has a negative image across the health field. Considerable leadership and increased Federal support of training programs is needed to remove the stigma and overcome recruitment inertia. The Committee on Aging and Medical Education of the Institute of Medicine, National Academy of Sciences, recommended that a broad and relevant body of knowledge on aging be introduced to the formal curriculums of medical students and that every physician be required to have an appropriate exposure to the principles of geriatric medicine (JAMA January 11, 1980). All health and allied health professions would do well to follow suit.

The unattractiveness (i.e., perceived lack of "glamour") of the rehabilitation field to medical schools, as well as to institutions that train allied health professionals, has created a severe shortage of personnel. Not only should the number of medical graduates training in rehabilitation be increased threefold, but all health providers should receive training in rehabilitation in order to be prepared in an area that will involve more than half of all medical costs in the next two decades. Every health professional, regardless of specialty, needs to use rehabilitation services and skills to help elderly patients attain maximum independent function and minimum psychosocial and emotional problems.

In the next two decades, more than half of the national medical budget will be expended on the elderly, increasingly on rehabilitation. In view of this, the recent transfer of the Rehabilitative Services Administration to the Department of Education rather than to the Department of Health and Human Services seems highly inappropriate. The Department of Education does not administer most of the program and only serves to put another programatic layer between the elderly handicapped and the services they need. The new thrust of rehabilitation programs toward assistance for independent living is a concept that depends on the broadest possible range of services, not just on education.

Rehabilitation services for the elderly must be provided as an integral and major part of customary health services within the total spectrum of medical care in hospitals, at home, and in the community. Rehabilitation of the elderly is not secondary to medical treatment, it is an essential early component of service in medical, surgical, and psychiatric practice. The high costs of medical and hospital intervention are wasted if the rehabilitation goal of independent living is not built into the plan at the time of the patient's admission to the hospital. Treatment often fails and phsyical and mental disintegration occur if patients are not promptly rehabilitated to resume normal independent living.

VI. Recommendations

1. Strong efforts should be made to reverse the long neglect of rehabilitation medicine. This Committee recommends that Federal health agencies increase their funding of grants for rehabilitation research and training.

2. Legislation should be amended or effected to provide for: special advocacy for handicapped elderly to obtain rehabilitative services; inclusion of rehabilitation incentives in welfare legislation; expansion of Veterans Administration programs for rehabilitation of the large population of aging veterans; expansion of vocational rehabilitation services under Medicare, Medicaid, and appropriate comprehensive care programs; improved linkages between the Rehabilitative Services Administration and all Federal agencies concerned with aging; cooperation between the Federal government, the private sector, and voluntary agencies to create new jobs for the aging; and accelerate the application of technology to permit continued independence of handicapped elderly.

3. The illogical placement of the Rehabilitative Services Administration in the Department of Education denies needed rehabilitation services to the elderly. The agency should be reassigned to Health and Human Services. The reassignment should be accompanied by major internal restructuring to include rehabilitation of the elderly as part of the primary mission.

MENTAL HEALTH AND THE ELDERLY

Gene D. Cohen, M.D.
National Institute of Mental Health

I. Introduction

The mental health of the elderly remains one of our most neglected health areas. The elderly, who have the greatest frequency of mental disorders, the highest suicide rate, and the highest risk for disability, social isolation, and iatrogenic illness of any segment of the population, have the least access to mental health service and social support programs.

II. Conceptual Framework

Mental illness is more prevalent in the elderly than in any other group: 18 to 25 percent of older persons have significant mental health symptoms; suicide occurs more frequently among the elderly than among any other age group (Butler and Lewis 1973); psychosis increases significantly after age 65 and more so after 75 (Cohen 1980). Despite these grim facts, American society has not faced up to the problems.

III. The Present Situation

Although the over-65 age group (11 percent of the population) has a greater prevalence of mental disorders than younger adults, less than 5 percent of patients seen at outpatient mental health clinics are 65 or older, and even fewer in this age group are seen at private psychiatric clinics. It is estimated that only one percent of the total funds for direct care of mental illness in the United States is used in the care of the 20 million elderly living in the community (95 percent of the older population). The bulk of direct care mental health costs for the elderly go to the 5 percent who are institutionalized. Of the more than 4.5 million older persons who need or could benefit from mental health services, only about 10-20 percent receive it. Often the elderly are seen only once in outpatient clinics, compared to treatment once a week for younger adults.

Approximately 30 percent of public mental hospital patients are over 65. These individuals are often barred from private treatment by patterns of insurance coverage and, especially, by inadequacies in Medicare, Medicaid, and Title XX of the Social Security Act.

Five percent of people over 65—more than 1 million people—are in institutions. The rates increase with age; 10 percent of those over 75 and 20 percent of those over 85 are in institutions. Nevertheless, assessment methods are inadequate to ensure appropriate placement in either the community or in institutions, and misdiagnosis, especially of senility, is said to be commonplace (Cohen 1980).

Isolation without adequate social supports is a critical issue. One in seven men over age 65 lives alone. Nearly a third of women 65 and older live alone. Isolation is very often due to the death of a spouse; 17 percent of men 65 and older and 30 percent of men over 75 are widowers. Fifty-four percent of women over 65 and 70 percent of those over 75 are widows. Different mortality rates in men and women decrease opportunity for man-woman relationships; at age 65 women outnumber men four to one, at 35 they outnumber them two to one.

Some investigators believe that loss of the work role and its associated social status contributes to high rates of depression and suicide in older persons, especially older men. Though the elderly comprise 11 percent of the population, they account for 17 to 25 percent of reported suicides (Minkler 1981).

IV. Key Issues

The poor response to the service delivery system to older persons with mental disorders and errors in the treatment of elderly individuals are to a significant degree due to a severe paucity of geriatric information in the training curriculums of health professionals. Despite Congressional mandates to provide services for the elderly, as in the Community Mental Health Systems Act of 1975 (P.L. 94-63), a well designed training effort of national scope has not yet been adequately implemented to alter the behavior of the health care delivery system and individual practitioners.

As with many proposed national initiatives the matter of finding resources arises, especially in this time of economic difficulties. However, one approach could be undertaken with very conservative funding: a requirement by the National Institute of Mental Health that training of mental health professionals and paraprofessionals include didactic and clinical components on aging, and development of a cadre of experts in mental health and aging who could join university staffs to provide this training. The approach would build upon structures already in place at NIMH, i.e., the program of the Division of Manpower and Training and the Faculty Development Program of the Center for Studies of the Mental Health of the Aging. Model curriculums could be developed for $1-3 million. Faculty development would require $2.5 million the first year, $5.0 million the second year, $7.5 million the third year, and only increases for inflation thereafter. Both parts of this approach would be responsive to recommendations made by the 1971 White House Conference on Aging for promoting mental health in the elderly.

V. Recommendations

1. To improve the ability of mental health professionals to deal with the problems of the elderly, the following steps should be taken: The Division of Manpower and Training at the National Institute of Mental Health should require didactic and clinical components on aging in the basic training grants that it funds. The NIMH Center for Studies of the Mental Health of the Aging should significantly expand its Faculty Development Program to train a nationwide cadre of experts in mental health and aging who can help generalists improve their capacity to meet the mental health needs of the elderly.

2. The elderly should be provided access at the community level to comprehensive diagnostic and assessment centers with a three-fold function: to establish baseline measures of health status and social functioning; to recognize incipient mental dysfunction and prevent progression to disability; and to assist older persons with apparent disorders to effectively plan for subsequent treatment in order to prevent inappropriate and unnecessary interventions or iatrogenic illness.

3. Social supports and family assistance approaches should be developed to keep older persons at their highest and most independent functional level. Such supports should include home care/homemaker programs, respite care programs, and tax incentives to reward families for their own efforts in maintaining older members in the community.

4. To prevent older persons from experiencing isolation and deteriorating morale leading to depression and other serious consequences, communities should strengthen existing programs and create new ones aimed at mobilizing the social involvement and civic contributions of older persons.

5. To prevent serious psychological and psychosocial consequences of sensory deprivation, diagnostic examinations and sensory aids should be available to all older individuals who need them.

6. To prevent mental disorder secondary to major losses and potentially traumatic transitions in later life, programs should be available in communities to assist older individuals and their families to cope with or prepare for these losses and transitions. Such programs could be built on existing programs like community mental health centers and community health clinics.

7. Research and research training should be increased to improve mental health in late life. The research should be aimed at improving the capacity to prevent psychiatric consequences from physical health problems, psychosocial stress, and loss.

DENTAL HEALTH

Sidney Epstein, D.D.S.
University of California, San Francisco

I. Introduction

The elderly need dental services more than any other age group, yet their use of such services is disturbingly low. A principal barrier is age itself, with its decreased earning potential, increased health expenses, and physical dependence. Oral health affects nutritional, esthetic, and social functioning. Oral disease or discomfort may be the significant cause or effect of a disorder in another part of the body.

II. Findings

Dental Needs of the Elderly

The latest statistics from the National Center for Health Statistics (1971-1974) demonstrate that by almost every measure the elderly are in greater need of dental services than the general population. Almost two-thirds of persons 65-74 years old had periodontal disease (pyorrhea), compared to 41 percent of the general population. Older Americans had an average of 22.2 decayed, missing, or filled teeth—9 more than persons of all ages. The presence and severity of periodontal disease and gingivitis increase steadily with age. Persons 60 years and older are more than four times as likely to have lost their natural teeth than the general population (45.5 percent versus 10.7 percent).

Utilization of Dental Services

The elderly do not seek or get dental care as frequently as younger persons; in 1978, persons 65 years and older averaged 1.2 dental visits per year, compared to 1.6 visits for persons of all ages. More than 44 percent of persons 65 years and older have not seen a dentist in at least 5 years, compared to only 13.6 percent of the general population. The elderly poor use dental services even less than the general population of elderly. The principal reasons for the relatively low rate of utilization are the attitudes of the elderly themselves, their financial difficulties, and their limited mobility.

Attitudes

Many dental researchers believe that the elderly, raised with little regard for the concept of preventive dentistry, do not place high value on optimal oral health and tend to accept chronic dental disease as a normal part of aging. Therefore they do not seek restorative and preventive dental care even when it is free (Kiyak 1980). Geriatric dental problems result not from aging but from neglect (Epstein 1980). Older persons frequently believe that once they obtain dentures they no longer need regular dental care. Regular home care and periodic professional examinations are vital to those who have lost their teeth so that dentures can be checked, corrected, modified, or replaced if necessary.

Finances

People over 65 are less able to afford dental care because the two main sources of funding—dental insurance and direct payment from income—are less available to them. Retired elderly are frequently barred from groups covered by insurance plans. The difficulty is exacerbated by the exclusion of comprehensive dental benefits under Medicare. The dental profession sees the failure of Medicare to pay for regular preventive care as a major deterrent to elderly persons and is urging a revision in this legislation. Most persons over 65 are retired and live on fixed, limited incomes in a period of life that unfortunately coincides with increased incidence of illness and increased medical expenses, which further reduces their ability to pay for dental care.

Mobility Limitations

It has been estimated that in 1972 more than 3.5 million elderly had limited mobility (National Center for Health Statistics 1979), possibly affecting their ability to travel or to tolerate treatment. All health professionals need education on planning and providing oral health for the elderly regardless of mobility limitations.

Other Considerations

The lack of adequate dental care in long-term care facilities demands particular attention. Only about 18 percent of nursing homes provide dental services, and few long-term care facilities attempt to incorporate formal oral health care into their programs. Existing regulations that apply to all Medicaid-qualified long-term care facilities should be enforced.

Critical Needs for New Knowledge

There is little definitive knowledge of the physiology of aging. Research indicates that there is much to learn about oral physiologic processes. Data on aging and its effects on normal and pathological functions are urgently needed to refute or confirm the meager body of information now available (Baum 1980). There is basic need to define "optimal oral health" and establish criteria for dental outcomes. Optimal outcome will vary in different individuals; the desired treatment plan for an 85-year-old bedridden patient may be quite different from that of a "young" 65-year-old. (Developing outcome criteria will require followup evaluations of treatments given to persons of all ages, the sort of information that might someday be available from the Baltimore Longitudinal Study of Aging.)

Care delivery to elderly patients requires specialized knowledge or equipment. Certain illnesses or conditions affect patients' ability to receive treatment. While this might be obvious in the case of a severely arthritic individual, there is need to assess the impact of various conditions on oral health and their subsequent influence on an individual's ability to tolerate treatment.

Delivery of care demands cooperation by all members of the health care system. Many nurses, physicians, and dentists frequently are uncomfortable treating the elderly. An examination of the attitudes and expectations of various members of the treatment team and the development of effective training programs will begin to address these concerns.

Although the elderly do not place high value on maintaining oral health, studies suggest that oral hygiene programs involving patients in self-care and self-monitoring activities can be very helpful (Kiyak 1980). These programs should be studied to determine which are most effective, especially for residents of long-term care facilities.

So little is known about the oral health status of the elderly that it is impossible to assess differences among various ethnic groups and geographic areas. This information would be useful in designing preventive programs. It is also important to assess how the present supply of dentists and auxiliaries can most effectively treat the elderly population. This would require examining existing resources and capabilities for continuing education for members of the dental health delivery team.

III. Recommendations

1. Education. It is crucial that dental schools incorporate courses that draw on expertise from medicine, nutrition, social work, nursing, and other health care services. Courses should be presented to dental students on the biological and psychosocial aspects of aging and the delivery of care before they become involved in clinical treatment programs. Continuing education on the oral health care needs of the elderly should be made available to all members of the dental profession, including auxiliary personnel. In-service training programs are also needed for staffs of nursing homes and other long-term care facilities. Finally, public education programs are needed to motivate the elderly to place higher priority on dental care.

2. Health Assessment Centers. Essential equipment for dental personnel to perform detailed examination of all oral structures should be included in planning for health assessment centers (see section on Indicators of Change in Physical and Mental Health in Late Life).

3. Funding. To eliminate a major deterrent to dental care for the elderly, dental services should be covered by Medicare.

THE NEED FOR LINKAGES IN HEALTH MAINTENANCE AND HEALTH PROMOTION

Harold Dame, M.P.H.
Health Services Administration

Seymour M. Farber, M.D., B.A.
University of California, San Francisco

I. Introduction

The Health Maintenance and Health Promotion Technical Committee realizes the importance of linkages—the system of coordination between agencies and services for health care. Linkages between hospitals, nursing homes, and other long-term care facilities already exist, but coordination is poor and there are limited alternatives to institutionalization, a discouraging maze of office locations, applications, and financial requirements, and a tendency of elderly persons with limited incomes to accept only the services that are reimbursed. These problems are properly the domain of the Long-Term Care Technical Committee and will not be further discussed here.

II. Findings

Perhaps the widest and most direct value of linkages could be in assessment centers (see the section on Indicators of Change in Physical and Mental Health in Late Life and the section on Dental Health) and could also involve the National Senior Health Corps (see the section on The Elderly as a Resource).

Often neglected in discussions, planning, and writing on linkages is the area of family and neighborhood networks in providing services for health maintenance and health promotion. This is also an area where private health organizations can play a major role. The media can play an equally important role by disseminating information that is not only practical but lauditory.

Medicare has provided considerable service in institutional care but continues to provide little in terms of health maintenance and health promotion. Important services for the elderly such as nutrition services, homemaking, chore services, legal services, transportation, medications, special housing allowances, dental care, and visual and auditory services are not covered. Medicaid, available to the elderly poor, provides for some of these services, but since this is at the option of the States, benefits vary in different geographic locations. Title XX of the Social Security Act provides some of these services, but also at the option of the States. The Older Americans Act allows for contracting of some of these services, but fragmentation of service delivery is still the rule. Assessment centers, funded by Medicare, could play a major role in linking up all such services.

Linkage to services also can be promoted through participation in self-care and mutual help groups. These groups share the common goal of increasing the involvement of their members in decisionmaking regarding treatment and where to obtain it.

Health maintenance and health promotion linkages can play an important role in ensuring that chronic conditions in the elderly do not advance rapidly. For example, a hypertensive who receives proper treatment and followup can avoid consequences such as heart attack and stroke. Likewise, a diabetic can avoid complications such as gangrene and damage to the retina. Linkages to services for treatment of drug abuse or alcoholism can prevent or minimize many serious complications.

III. Recommendation

Assessment centers for maintenance and health promotion could provide needed linkages between existing health services. The centers should be funded by Medicare. Neighborhood and family networks, as well as self-care and mutual health groups, can also play an important linkage role and should be strongly encouraged.

REIMBURSEMENT FOR PREVENTIVE AND HEALTH MAINTENANCE COSTS FOR THE ELDERLY

Bernadette Stalpes, M.S.
Benjamin Rose Institute

I. Introduction

Reimbursement for preventive and health maintenance is particularly salient for the elderly for many reasons: 1) most persons over 65 have a chronic health problem; 2) rapidly changing health care technology and specialization often create a bewildering maze of services; 3) increasing health care costs prohibit access to needed services or cause great financial burdens; 4) inappropriate institutionalization can result if adequate support services are not available (the literature indicates that 30 to 40 percent of nursing home residents do not belong there).

II. Conceptual Framework

Although American society has been somewhat responsive in providing for social support and health care for the elderly, adequate reimbursement mechanisms are not yet available for many health services. Costs for these services are soaring, yet funding for them is unlikely to increase and may even decrease. Therefore, it is necessary to explore options to provide much-needed services while attempting to redistribute existing funds creatively.

III. The Present Situation

Medicare is designed to alleviate problems related to the cost of acute care, but it provides little reimbursement for followup or prevention. For example, it does not cover nutrition services, homemaking and chore services, legal services, transportation, personal care, health-related therapies, nonhospital physician services, skilled nursing, medications, specialized housing, dental care, and visual and auditory services and devices (Elm Services 1980). Some poor or near-poor elderly can turn to Medicaid. However, Medicaid also has shortcomings, including an institutional bias in the use of funds. Inequities arise from State variations in eligibility, benefits, and possible restricted access to institutional care because of low reimbursement rates (Elm Services

1980). In addition to federal money, financial support comes from private, nonprofit, and charitable programs.

The system for health care of the elderly was characterized this way in one House of Representatives report: "Reactive and redundant—expedient—ponderous—costly—these are the realities of the present service systems for seniors—that is, in sad effect, only a nonsystem!" (Report by the House Subcommittee on Human Services 1980).

Reimbursement for health maintenance and health promotion costs also has major inadequacies; the focus is mostly on acute care or institutional care, not prevention or health maintenance, and funding sources are fragmented and inconsistent among States. A 1978 Department of Health, Education, and Welfare task force on prevention identified several key issues in reimbursement of preventive services (U.S. DHEW 1978): 1) Medicare, Medicaid, or comprehensive national health insurance could be used to provide Federal reimbursement for preventive health services; 2) fee-for-service physicians would be the major providers if preventive service were included in a general reimbursement package; 3) general reimbursement would make preventive services available to the greatest number of people. The task force identifed several problems in covering preventive services: considerable disagreement as to which services are effective; the need for preventive care to occur regularly to be effective; and difficulties in defining prevention or monitoring fee-for-service physicians, as well as indiscriminate coverage of all preventive care, which could reduce funding or more efficient preventive services.

The health care maintenance system has many difficulties, including a variety of specialized services resulting from years of incremental development; service and funding gaps; duplication of services; clients with multiple needs that require coordinated social and health care services; and institutional and treatment biases.

IV. Policy Options

Obviously, reimbursement for preventive and health maintenance costs is especially important for our elderly population. Yet, developing adequate policy is extremely difficult and complex because it requires creative redistribution of funds to develop an effective and accountable system for service delivery.

The 1978 HEW task force on prevention identified the following options (or preventive care reimbursement (U.S. DHEW 1978)).

1. Unlimited Coverage. This approach would encourage wide participation by providers but would entail many problems (see last paragraph under The Present Situation).

2. Vouchers for Dollar-Specific Amount of Preventive Care. This approach would limit costs, but the content of preventive care would not be specified and appropriate regular use by individuals would not be ensured.

3. A Health Monitoring Package That Specifies Services, Age and Sex of Recipients, and Intervals for Delivery. This would deal with many of the problems previously mentioned, especially if coverage were also dollar-limited, but responsibility for appropriate regular use would still lie with the consumer and it would take a major effort to reach agreement on a cost-effective package.

A brief summary of options is contained in a report by the Center for Policy and Analysis and Research (1980).

1. Case Management. This approach attempts to integrate, individualize, and improve access to services, decrease focus on institutionalization by a better distribution of resources and better funding of new services, provide appropriate followup services, and ensure coordination to meet the multiple needs of clients.

2. Single Agency. The rationale of this concept is to provide a focal point for long-term care, reduce fragmentation, and remove eligibility barriers. Four single-agency models have been proposed, each with varying degrees of centralization affecting the specific kinds of services provided.

3. Social/Health Maintenance Organization (S/HMO). This option has many similarities to prepaid group practices and health maintenance organizations (HMOs). Enrollment is voluntary, a defined set of services is guaranteed, capitation levels are fixed in advance, single entry into a defined care system is maintained, and enrollees and providers have similar incentives for judicious use of services. However, there are several important differences between a HMO and a S/HMO. S/HMOs are designed to provide social and personal care in the home as well as in medical settings and to target such services to populations at risk of institutionalization; they would contract with a greater

variety of local providers for backup, and they would depend on Federal and State governments for reimbursement. Currently operating HMOs and Comprehensive Personal Care Organizations (PCOs) are the most likely candidates to evolve into S/HMOs.

V. Recommendations

1. Future service delivery should be developed within the framework of health promotion, prevention, and health maintenance rather than take the more narrow approach of treatment and long-term care.

2. Legislative and financial support should be given to develop, implement, and evaluate Case Management, Single Agency, and Social/Health Maintenance Organization models of service delivery and reimbursement as well as to provide Medicare/Medicaid waivers to cover unallowed costs for the elderly.

3. Future planning for preventive and health maintenance service should focus on coordinating services and networks and reallocating existing service funds rather than on developing totally new programs.

PART II. BEHAVIORAL ISSUES IN HEALTH MAINTENANCE AND HEALTH PROMOTION

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THE ROLE OF NUTRITION IN HEALTH MAINTENANCE AND HEALTH PROMOTION

Margaret A. Ohlsen, Ph.D.
Retired

Mary Beth Minden, Ph.D.
Retired

Merideth A. Minkler, Dr. P.H.
University of California, Berkeley

I. Introduction

The Committee on Health Maintenace and Health Promotion considers nutrition education and promotion the most important strategy for promoting the health of the elderly in the 1980s. This report is aimed at identifying promising programs and strategies for improving the nutritional status of older Americans and thereby improving their general health and quality of life.

II. Conceptual Framework

Although proper nutrition is especially important in the later years, very little in known about the requirements for individual nutrients in older adults. While the need for calories gradually diminishes with age, the need for nutrients does not decrease commensurately. Since nutrients and calories are linked, there is a risk that some older individuals who progressively reduce their caloric intake may simultaneously reduce their intake of nutrients. The reduction of caloric intake therefore requires a more careful selection of food with high nutrient value. The problem is made worse by age-related changes in the digestive tract that decrease the efficiency of nutrient absorption.

Many elderly people suffer from latent nutritional deficiency diseases that are not severe enough to present symptoms, but serious enough to undermine their health. Most severe illnesses produce a common pattern of nutrient deficits in the elderly. Deficiency disorders may also occur with use of drugs that interfere with absorption or utilization of nutrients. Vitamin deficiencies are common among alcohol abusers. Alcohol-related disease is found in 5-10 percent of hospital admissions of patients 65 years of age and older. One third of these patients have overt signs of malnutrition.

What the elderly eat is conditioned by psychological, economic, and cultural factors. The key to good nutrition is food variety, but many older people, especially those who live alone or have difficulty preparing foods, may develop a preference for nutritionally inadequate prepackaged or easily consumable foods such as crackers, pastries, and bagged snack food. Lack of motivation to eat is common in old people who have lost a spouse or suffer the emotional strain of forced changes in life styles, economic dependency, or chronic disease. Such persons also may face many practical problems in food preparation such as those arising from the fact that food usually is not packaged in single portions. On the other hand, some elderly satisfy unfulfilled needs by eating too much and become obese.

The search for youth makes the elderly a natural target for food faddists. The "natural food" stores and the many magazines and books promising perpetual youth have several things in common: their recommendations include a variety of specially packaged products, all of which can be obtained at the supermarket at much lower cost; the mineral and vitamin mixtures are unjustifiably potent and should be taken only on advice of a physician in the rare situations when such high potency is needed. Perhaps the most vicious aspect of food fad promotion is that it diverts dollars from limited budgets that could be better spent in the regular procurement of food.

III. The Present Situation

The official poverty index used by the Federal government is based on an "economy food plan" defined by the Department of Agriculture as providing "a minimally nutritious diet for *emergency* and *temporary* use" (emphasis added) (Butler 1980). As Binstock (1980) has pointed out, "according to the Department, only 10 percent of the persons actually spending the daily amount which it postulates for food expenditures in the economy food plan would be able to receive a nutritionally adequate diet." Indeed, it is not until one reaches the level of 125 percent of the poverty line that the Department of Agriculture regards income as sufficient for a minimum adequate diet.

Adequate income should be primary in any consideration of measures to improve the nutritional status, and therefore the overall health status, of the elderly. Existing measures of poverty level income, which fail to provide for even a minimally adequate diet for longer than "emergency and temporary use," should be revised to at least 125 percent and ideally 140 percent of the poverty line. This would increase the number of elderly persons living in poverty from 3.3 million to a more realistic figure of nearly 9 million (Minkler and

Fullarton 1980). Several Federal food distribution programs exist, including those of the Administration on Aging (congregate feeding programs for the poor) and the Department of Agriculture (foods made available through price support activities and the Food Stamp program). There is concern, however, that in the current national mood the thrust of Federal policy may cause a curtailment of programs to improve the nutritional status of the elderly. Nutrition education, frequently proposed as a major approach to promoting health in the elderly, is surely important but has little value to those who cannot even afford a proper diet.

Most Federal nutrition education programs are legislated or administered in a manner intended to draw out additional state or local support, for example, by matching funds, thus providing a framework for state and local efforts. At the same time there are a large number of federal/state/local efforts carried out either cooperatively or separately that indicate a mutual concern for nutrition.

Three Federal programs have a history of giving leadership to nutrition education. Their administrative experience and State and community networking records suggest a base for a nutrition education thrust to meet the needs of older Americans during the 1980s. Agency limitations in the form of mandate, funding for special purposes, and possible perceived role would have to be overcome, but building on existing administrative structures is potentially less costly in both money and time. The programs of these agencies for the older population are minimal at this time, but their potential could be mobilized.

[1] Administration on Aging. Nutrition education can be funded under Title III-C (congregate nutrition program) of the 1978 amendments to the Older Americans Act, though it is not mandatory. Decisions to include nutrition education are made at the local level. The intent of this legislation is to use social service funds to fill gaps in what the community itself can provide.

[2] Recently, the National Association of Area Agencies on Aging (1980) showed that when money was budgeted for nutrition education, it was more likely to come from Federal funds than from State or local resources. About half of the nutrition service providers surveyed indicated that nutrition education was provided no more than once a month, in sessions of 30 minutes or longer, About 61 percent of the sites providing nutrition education had a registered dietician/nutritionist on the staff. Most nutrition education activities were conducted by the site staff, with 28 percent of the activities aided by cooperative extension service staff. Only 10 percent of the meal sites provided kosher, Hispanic, or Asian menus. This type of program provides a building

block in the development of a national thrust in nutrition promotion, but leaves unmet the needs of those not participating in the congregate meals projects. If the purpose is a healthier older population, other building blocks are needed.

[3] U.S. Department of Agriculture; Science and Education Administration—Extension. This agency, best known across the country as the Federal Extension Service, administers cooperative programs. Historically the programs have been rooted in the agricultural interest of the country, but in recent years portions of the program have reflected rural-to-urban population shifts and changes in agriculture. Nutrition education, one of the early components in the program, is still an important nonagricultural subject area. The programs use several methods to reach and teach the aging, including newsletters, special interest meetings, workshops, noncredit courses, club and other group meetings, television, radio, news releases, individual counseling, publications and fact sheets, correspondence courses, leader training, forums, and seminars. The Service has a memorandum of understanding with Administration on Aging to improve the quantity and quality of nutrition, health, and other supportive services to older persons. At the Federal level, leadership for programs for the aging is provided by a program leader who also is responsible for other special interest programs. The nutrition specialist who had responsibility for nutrition education for the elderly retired over a year ago and has not been replaced with a person having the same responsibility. In summary, the potential of this program is great, but as now administered it suffers from limited resources.

[4] Food and Drug Administration. While this agency has a narrower mandate in nutrition education, it plays an important role in providing information on food safety and food labeling. The agency is just completing a survey to make sure that information on food labels is what consumers want and can understand. Public education is accomplished through the FDA's field operations and the work of its 55 consumer affairs officers. These officers meet with the public and disseminate information by television and other media. The officers are consumerists first, although they may have a nutrition background. Their direction comes from the Office of Regional Operations, and they deal with all areas within the FDA mandate.

IV. Trends

Current trends in the area of adequate nutrition for the elderly are not encouraging. The severe inflation of food prices is certain to add many more elderly Americans to the millions who already do not have adequate nutrition. As mentioned above, the current unrealistic definition of poverty already excludes many needy elderly from food delivery programs. Furthermore, there is a danger that antipathy toward programs like the Food Stamp Program and a desire to correct their abuses and alleged abuses could go too far, leading to further worsening of the situation for millions of elderly Americans. However, it seems that the growth of the older population will make excessive tampering with such programs risky if the truly needy are denied a reasonable diet, and it is therefore likely that restraint will be exercised. There is growing realization that adequate nutrition is the cornerstone of preventive medicine. Preventing illness is far less expensive than treating it.

V. Key Issues

There is a strong link between income and nutrition. The current definition of poverty fails to provide for a minimally adequate diet for millions of elderly people.

There is no major thrust in nutrition education around which nutrition counseling, information, food distribution, and demonstration projects can serve a supplemental role. Many of the Federal nutrition education programs are useful but limited, and there is no unified purpose for nutrition education within the Federal structure. Despite the importance of the subject, nutrition programs have not been given the place they deserve in agency hierarchies.

Two basic needs exist in the nutrition of older Americans: (1) providing an adequate diet for those who cannot afford it; and (2) teaching the elderly the principles of good nutrition to make them aware of their changing nutritional needs and to protect them from food faddism and nutritional quackery.

VI. Recommendations

1. The poverty index should be revised to provide a minimally adequate long-term diet for millions of elderly Americans who are excluded from benefits under the current definition of poverty.

2. A nutrition education and outreach program for all persons over 60 years of age should be a cooperative venture planned and supported mutually by Federal, State, and local governments as well as by the private sector.

3. Coordination between existing Federal agencies involved in nutrition education should be improved. The existing coordinating committee for these agencies should be activated and strengthened to administer a common program in nutrition education.

4. The media have a responsibility to include the elderly as a special group in programs dealing with consumer protection. Special television programming is needed to deal with older persons' need of nutrition knowledge.

STRESS AND THE ELDERLY

Seymour M. Farber, M.D., B.A.
University of California, San Francisco

Mother M. Bernadette, O. Carm., A.C.S.W.
Carmelite Sisters for the Aged and Infirm

I. Introduction

The Surgeon General's Report on Health Promotion and Disease Prevention (1979) recognizes the importance of stress control in promoting health, and states that "even relatively minor reductions would amply repay the investment." The Health Maintenance and Health Promotion Technical Committee shares this view but also recognizes that a certain amount of stress is desirable as a creative force for health and well-being. The following discussion deals with the mechanisms and medical consequences of chronically excessive stress, as well as the value of creative stress, and offers policy recommendations for the White House Conference on Aging.

II. Conceptual Framework

It is difficult to generalize on specific stressors in any age group since the list of possible stressors is endless and what is stressful to one individual is not necessarily stressful to another. The important stresses experienced by the elderly have to do with change or threat of change in the living environment—inactivity, the fear of violence, disability, loss of closest intimates, loneliness, becoming unable to manage, becoming dependent. The excessive value placed on work as the measure of a useful life often leads to a crisis of self-esteem at retirement. Social support networks are also disrupted by retirement, death of a spouse, and geographic relocation.

Modern research has demonstrated that stress is a major predisposing factor in virtually all diseases. All stress has the same general effect, namely the provoking of a defensive response in the body. The response consists of a triggering of automatic mechanisms to restore balance in the internal environment. Normally these mechanisms protect life by stabilizing the system, but when stress is chronic the system becomes overburdened and breaks down, resulting in greater susceptibility to any of a wide variety of disorders.

It is a myth that all older people are under constant stress. It has been shown, for example, that persons who are emotionally stable in middle age continue to function adequately in old age (Leon et. al. 1981; Neugarten 1977).

III. The Present Situation

The Committee recognizes that other Technical Committees of the White House Conference on Aging are essentially analyzing stress factors, for example, the Committees studying housing and economic problems. Obviously, to help an older person resolve a critical housing or economic problem is to eliminate a major source of stress.

According to the Surgeon General, the rapid growth of self-help and mutual support activities to deal with such stress-related problems as alcoholism, divorce, handicaps, drug abuse, smoking, obesity, suicide attempts, terminal illness, death of a family member, and other problems indicates that these groups may be responding to social needs not completely met by families, churches, schools, or health professionals. Stress control appears to be a basic theme in all of these groups, but there do not appear to be enough groups of this kind specifically for the elderly. Teaching the elderly how to cope with the characteristic stresses of old age and how to use stress creatively should be strongly encouraged.

IV. Trends

The power to keep people alive will continue to grow as science advances. As that power grows, the number of elderly people in the United States will also grow, and the issue of the quality of their lives will become increasingly prominent. In the long run, stress may well become the limiting factor in determining how long and, most important, how well people live. Helping elderly Americans to cope with stress and to use it creatively, as well as eliminating unnecessary social causes of stress among them, will become increasingly recognized as critical components of national policy on health maintenance and health promotion. Although the search for effective treatments for specific diseases will continue, appropriate policy and legislation in the area of stress control ultimately may do more than any other kind of intervention to promote and maintain health and lower the Nation's staggering medical bills.

V. Findings

The narrow and negative view that all stress is harmful is constantly being reinforced, particularly among the elderly, who are seldom encouraged to see it as beneficial and controllable. They are led to believe that stress will automatically shorten their lives—that they must, because they are old, always "take it easy." This stereotype condemns many older Americans to live in isolation; to be relegated to passive roles; to be ignored; to wither in disuse, loneliness, and futility. Work, like life itself, is surely stressful, but boredom, idleness, and lack of a community role, or even a community, are more so. The ideal state is not total freedom from stress but stimulation and its resolution (Girard 1963). Because uncontrolled stress underlies so much disease it is important that national policy include measures to help the elderly cope with stress healthily and to use it creatively.

There are many authenticated accounts of witch doctors and voodoo priests killing people by reciting incantations that place them under a spell of death. The primary cause of "voodoo death" is believed to be the withdrawal of tribal support; the victim, given up for dead by the members of the tribe, is killed by the stress of isolation. The same appears to happen to old people consigned to dismal nursing homes or back wards of hospitals (Pines 1980; Maxwell 1979). For elderly persons, even the stress of relocation can lead to increased physical and psychological problems, serious illness, and death (Hassekus 1978). What many older Americans lack is what one author (Hanson 1978) has called "social nutrition." Isolation from the group is a major stressor, and it can kill (Wolff 1960).

Several teachable methods can improve the ability of the elderly to cope with stress: identification of stressors (Farquhar 1978), decisionmaking, communication and assertiveness skills, relaxation and meditation (Bloomfield et al. 1975), and exercise (deVries 1972; Driscoll 1973; Farquhar 1978). However, individual-level approaches to stress management cannot solve all problems. Inadequate income, unsafe environments, and socially imposed sense of uselessness also endanger health and obviously cannot be relieved by individualized techniques like exercise or positive imagery; there must also be broader institutional and societal efforts to correct underlying social problems. Indeed, these approaches may do more to promote health among the elderly than any individualized approach to relieving stress (Minkler and Fullarton 1981).

VI. Recommendation

Since stress is the common denominator in many disorders, it should be national policy to foster self-help and mutual aid groups to deal specifically with the stresses of aging and help the elderly use stress creatively. Also, unnecessary, purely societal causes of stress should be ameliorated or, where possible, eliminated.

DRUG-RELATED PROBLEMS IN THE ELDERLY

Richard V. Phillipson, M.D., F.R.C. Psych.
National Institute on Drug Abuse

I. Introduction

The elderly consume more prescription and over-the-counter drugs than any other group and are therefore more likely to be exposed to drug preparations containing two or more active drugs. Many nursing home patients can have three or more new drugs prescribed without any effort being made to review the drugs that have already been prescribed for them. It is not unknown for such patients to receive four or five drugs regularly, with twice as many ordered to be administered "when required." While all these factors increase the risk of harmful interactions between drugs, the most common risk is the interaction between drugs and alcohol.

The complications of alcoholism and alcohol abuse in the elderly include decreased metabolic rate, nutritional deficiencies, the masking of pain that would otherwise indicate an acute condition, self-neglect, falls, and confusion. Often the perceived frailty, senility, or simple unsteadiness of advanced age may actually be due to alcohol use.

II. The Present Situation

No effective mechanism has been established at the Federal level for translating new research developments into national policy, and discussions and delineations of policy issues as they relate to the elderly and drug use are difficult to identify. FDA regulations do not require consideration of age as a factor when new drugs are tested for psychoactivity or for abuse potential. Research in geriatric pharmacology is scarce, and little is known about possible altered patterns of drug metabolism, action, distribution, and toxicity in the elderly. Although the aged account for an increasing proportion of therapeutic drugs, the safety and efficacy of most of these drugs has been evaluated in younger patients who are less prone to side effects and very frequently have different dose requirements than their elders.

Many elderly people must deal with loneliness, boredom, frustration, and lack of a role, which often lead to depression. Frequently, the response of physicians to these emotional problems is to prescribe more drugs. Because of the closeness of death, many physicians reject psychotherapy and instead prescribe the more expedient psychopharmaceuticals. The elderly are particularly susceptible to drug advertising, which promises a chemical solution to their ills. When the promised result is not achieved, the tendency is to use more drugs.

Nearly 20 percent of the patients entering the geriatric service of general hospitals have disorders directly attributable to the effects of prescription drugs. Socioeconomic factors also play a role in drug-taking behavior by the elderly. Since many are on fixed incomes they frequently turn to over-the-counter preparations and home remedies to avoid the cost of seeing a physician. Serious problems can result from overuse of over-the-counter drugs alone, and especially when used in combination with prescription drugs or alcohol. Fear, ignorance, and lack of transportation also contribute to potential drug overuse and misuse by the elderly.

Chronic drug misuse, i.e., increasing the dosage or frequency of dosage leading to accidental overdose is greater with the minor tranquilizers. Deliberate overdoses more frequently involve sedatives. In contrast to young persons and men, who are likely to use stimulants, older persons and women are more likely to use sedatives and tranquilizers.

As the largest consumers of legal drugs, the elderly are at risk of dependency problems involving a wide variety of substances. Drugs with the highest abuse potential are those that can be self-administered under a wide variety of conditions. Many of the stresses of old age predispose the elderly to use psychoactive drugs as a coping mechanism, but it is difficult to estimate how many have developed a dependency on those drugs.

There is a strong tendency at all ages for the chronically depressed to use drugs to escape from a painful environment. One in three suicides in the United States is accomplished by using a prescribed drug.

Since 86 percent of persons over 65 have one or more chronic conditions, treatment of geriatric patients is likely to involve a variety of powerful drugs that may produce complex and little understood interactions. Sedatives, tranquilizers, and antidepressants are often used in combination, and each could inhibit the metabolism of the others. There may also be harmful interactions between components of the diet and some commonly prescribed medications.

III. Trends

With the present younger generation prone to self-medication and the use of greater amounts of psychoactive drugs, it is highly probable that there will be an increased problem of drug misuse in this group when it reaches advanced years. As health benefits expand, more elderly people will seek medical advice, and unless there is a change in the practices of most physicians more and more drugs will be prescribed.

IV. Recommendations

1. More than for any other patients, the first rule in prescribing for the elderly is "Do no harm." The number of drugs taken should be restricted, and dosages should be at the lowest effective levels. Attention should be paid to a patient's total drug intake, including over-the-counter drugs. Patients who consume alcohol should always be warned of possible interactions between alcohol and the drug prescribed. Consideration should be given to requiring that physicians who order drugs for patients certify that they have reviewed the total drug histories and that the administration of all drugs that are no longer required has been cancelled.

2. Research is urgently needed on the physiological, neurological, and endocrinological changes that occur during aging in order to develop better guidelines for dosage requirements in the aged.

ALCOHOL-RELATED PROBLEMS IN THE ELDERLY

Jane A. Taylor, Ph.D.
National Institute on Alcohol Abuse and Alcoholism

I. Introduction

Generally, the problems and needs of older problem drinkers in the United States have been ignored by service agencies and social analysts, although it has been estimated that as many as 1.6 million Americans over age 65 may be alcoholic. Also, the prevalence of excessive drinking seems to be increasing in the aging population. The severity of the problem for elderly alcoholics appears to be less than for younger alcoholics; few of them reach the point of requiring detoxification, and withdrawal symptoms are rare. Alcoholism in the elderly is more an emotional dependence than a physical one.

II. The Present Situation

Two general categories of elderly with problem drinking or alcoholism have been identified: the early-onset group who begin drinking at an early age and decrease consumption considerably by age 70, and the late-onset group who tend to have histories of more "normal" drinking patterns until they encounter the stresses of aging.

Elderly alcoholics generally consume less alcohol than younger alcoholics and are more likely to drink daily, at home, and alone. Excessive alcohol use by the aging is especially dangerous because of strain on body systems that are in a general state of metabolic change and decline, possible interactions of alcohol with other drugs (see the section on Drug-Related Problems in the Elderly), and the masking of warning pain by the anesthetic effects of alcohol.

Aging alcohol abusers do not necessarily manifest the classic symptoms of the disease. Also, certain social problems are not always applicable to them or may stem from factors specifically related to aging rather than to alcohol use. These factors create numerous problems in attempting to provide treatment services for aging alcohol abusers and alcoholics.

In view of the excellent chances of recovery for aging problem drinkers and alcoholics, the failure to address their problems is ironic. They are not as likely to have the deep-seated psychological problems of younger alcohol abusers, their problems are related more to situational factors associated with growing old and are therefore easier to confront, and their concern about health is a valuable tool for treatment providers.

It has been found that the most effective way to provide treatment for elderly problem drinkers or alcoholics is through such services as senior citizens centers or by treatment at home.

III. Recommendations

1. Alcohol abuse and alcoholism are responsible for an enormous amount of illness and suffering, from teen age to old age. Elderly alcohol abusers and alcoholics are one of the least visible groups with this problem. Greater efforts should be made to bring them into treatment, using existing services for the elderly such as senior citizens centers.

SELF-CARE AND MUTUAL HELP

Mother M. Bernadette, O. Carm., A.C.S.W.
Carmelite Sisters for the Aged and Infirm

Larry D. Wright, M.D.
Rogers (Arkansas) Medical Center

Meredith Minkler, Dr. P.H.
University of California, Berkeley

Jane Fullarton, M.P.H.
University of California, Berkeley

I. Introduction

Self-care and mutual help are among the more promising developments in health maintenance and health promotion. Self-care refers to actions that individuals take to promote their own well-being or that of their families and friends. Mutual help groups are comprised of individuals who share a common condition and meet to give each other support. Although most self-care and mutual help groups have developed without special regard to age, the concepts may be especially appealing for the elderly. Many self-help groups focus on chronic illnesses that are common in older people, for example, arthritis and stroke. Participation in self-care classes often can reduce unnecessary and costly reliance on health professionals and can provide an opportunity to develop social ties with others who share common concerns and interests.

II. Conceptual Framework

Self-care is based on the concept that personal health is best promoted when there is active and informed participation by the individual. Mutual help refers to the very desirable possibility of older persons receiving assistance in their self-care efforts from their peers. The ultimate goals are to help the well remain well and to help the sick help themselves and remain as independent as possible. Basic to effective self-care are appropriate health education, consistent support of health professionals, and adequate motivation on the part of older people.

Strong psychological factors make self-care and preventive medicine approaches especially relevant for older persons. Perhaps the strongest factor is the desire of most elderly people to retain some degree of self-determination and independence. By preserving independence, a strong defense is established against a frequently destructive sequence of events that includes loss of self-respect and progressively deteriorating mental and physical health.

Wide acceptance of self-care among the elderly would have significant economic advantages in reducing personal expenditures and containing the rising costs of medical care. Other indirect benefits include integration of the elderly into the community as contributing members rather than as dependents. Since successful self-care often requires significant help from others, an effective outreach to the isolated elderly can also result.

III. The Present Situation

Self-Care and Mutual Help Groups

There are approximately 500,000 self-help and mutual help groups in the United States (Sobel 1980). Although the groups are highly varied in scope, content, and objectives, they share a common goal of increasing the involvement of their members in decisionmaking and treatment.

Little attention has been paid to the health concerns of older persons in the self-care literature except for the subject of menopause, which is probably due to the fact that much of the recent impetus to self-care came from the feminist movement (Minkler and Fullarton 1981).

The diabetes program of the University of Southern California Medical Center illustrates some of the elements of a successful approach to self-care. Such measures as installing a telephone hotline for information and advice, providing counseling by physicians and nurses, and issuing pamphlets and posters to promote the service reduced the incidence of diabetic coma by two-thirds and cut emergency room visits in half (Surgeon General's Report 1979).

A program for self-management of arthritis at Stanford University is a model of self-care, peer support, and health education in a program serving an older population group. The program emphasizes exercise, protection of joints, and proper use of medication. More than 1,700 arthritics have completed the two-week course and three-month followup, at a cost of about $12 per person. Instruction is given by 60 trained lay leaders, many of them elderly. In a prospective study of 300 participants, followup data collected at four and eight months revealed a 20 percent improvement in knowledge, a 100 percent improvement in exercise, and a 9 percent decrease in pain, as well as increased satisfaction with medical care. These results suggest that self-care and mutual help programs can significantly improve the health status of large numbers of older persons in a cost effective manner. A built-in impetus for proliferation of such groups is indicated by the fact that several of the lay leaders who moved away established new groups on their own.

The development of informal programs for health promotion of the elderly by civic groups, churches, synagogues, and other community organizations should be strongly encouraged. Public awareness of the need for preventive medicine, as well as information about how to embark on active individual efforts at self-care, require effective promotion.

Exercise

Perhaps the single most important factor in the maintenance and promotion of health in older persons is physical activity. No other aspect of self-care more clearly illustrates the ability of older people to positively affect their own health than regular exercise. The benefits to physical, mental, and emotional health are impressive and undeniable.

Despite the power of regular exercise to prevent disability among the aged and to rehabilitate older persons who already have physical disabilities due to chronic disorders, most people grow less active with age. Other demands on time and energy in early and midlife are often given priority over activities requiring regular physical exercise, so that many individuals arrive at late middle age with a legacy of sedentary habits and suboptimum health.

Many older persons have unfounded fears of potential health hazards that might accompany increased physical activity. It is important that older persons at all ages, including those with chronic health conditions, understand the desirability of being as physically active as possible on a regular basis. They should understand that a regular program of physical exercise can be undertaken safely at any age despite many medical problems. Starting such a program does require a medical evaluation, and a schedule of gradual increase tailored for the individual's special physical limitations should be followed. Certain types of physical exercise are preferred for persons with particular problems. For example, persons whose arthritis restricts their walking endurance may find swimming and other exercises in water ideal.

The direct benefits of regular physical activity include improved bowel function and cardiovascular efficiency, reduced blood pressure in hypertensive persons, increased breathing capacity, and preservation of body flexibility, strength, balance, coordination, and agility. The subjective benefits are equally impressive: enhanced body image and self-esteem, reduced boredom and mental fatigue, and a heightened sense of well-being.

Conversely, the health consequences of physical inactivity are numerous. Disuse of the human body is much more often responsible for the many physical problems of old age than the "normal aging process," which usually receives the blame. The increased effort required of a sedentary older person to perform simple, routine daily activities is due to a general depletion of energy brought on by inactivity. The functional reserves of most organs tend to decline and thereby decreases the ability to cope with illness or accidents and to follow the demands of a rehabilitation program if required.

Throughout life, the most effective type of activity for cardiovascular fitness is aerobic exercise, which includes any physical exertion that involves repetitive body movements and increases heart rate for sustained periods. Examples are walking, swimming, bicycling, jogging, and tennis. These kinds of physical exercise lead to more effective delivery of oxygen and energy to the organs and tissues of the body. Even more important is the enhanced efficiency, on a cellular level, with which the tissues are able to utilize these substrates to produce energy. When the human body is able to maintain aerobic metabolism preferentially, the pulmonary and cardiovascular systems (especially the heart) are able to provide blood and oxygen supply for other bodily functions with much less strain.

Recent studies have repeatedly confirmed what many experts have long believed about the advantage of regular exercise in lessening the risk of heart attacks. People, especially older people, who participate in regular vigorous exercise experience fewer fatal and nonfatal heart attacks than those who are inactive. Moreover, the physically active persons who do suffer heart attacks tend to have fewer complications and to recover more readily.

An Administration on Aging publication from several years ago stated the concept well: "The way to *keep* lively is to *be* lively; the way to stay active is to move. Energy begets energy, and the only way to develop the capacity to expend more and more energy is to keep increasingly active."

IV. Recommendations

1. More self-care and mutual help programs are needed to provide health guidance for the elderly and should be strongly encouraged. Government, community, and private agencies should provide training for health workers, the elderly themselves, and the families of elderly people on how to organize self-care and mutual help groups that address special concerns of the elderly, such as kitchen and home reorganization and transportation. These training programs should be funded by Medicare/Medicaid allowances.

2. Government should continue to promote exercise and physical fitness as one of the most effective methods of health maintenance and health promotion in older people. Compared to the costs of treating chronic disorders brought on or aggravated by sedentary living, the expense of a massive public education campaign on the physical and mental health benefits of exercise seems negligible. Particular emphasis should be placed on promoting self-care and mutual help groups as ideal settings for physical activity programs for the elderly since they can provide group reinforcement, healthy social contacts, and outreach to the isolated.

OLDER AMERICANS AS A RESOURCE IN HEALTH MAINTENANCE AND HEALTH PROMOTION

Seymour M. Farber, M.D., B.A.
University of California, San Francisco

Joyce G. Poulsen, M.S.W.
1981 WHCoA Staff Member

I. Introduction

In 1978 the National Committee on Careers for Older Americans was established to bring about productive use of the skills and experience of the elderly and to meet the burgeoning needs of community health and social service programs. The National Committee's report, Older Americans: An Untapped Resource, called for full utilization of the vast resource of knowledge and skills in this rapidly growing segment of the population. The report stressed that a majority of preventive services should be provided by older Americans themselves. The following discussion enlarges on this concept and concludes with an innovative proposal for using older Americans as a national resource for health maintenance and health promotion.

II. Conceptual Framework

Clearly, trends exist that are encouraging people to stay in the workforce longer. These trends are related to improved health of the elderly, economic factors, and the medical and psychosocial benefits of work.

Older Americans are not only living longer, growing numbers of them are enjoying better health than at any other time in our history and their relative health status is improving steadily (Palmore 1976). Furthermore, because of inflation, inadequacies in the overburdened Social Security System, and lack of private pensions to sustain a good standard of living in later years, the trend to early retirement is no longer expected to continue.

Research has established that work satisfaction is the single most important indicator of longevity. Maintaining social ties through employment appears to lessen susceptibility to illness. Markedly improved mental outlook resulting from increased self-confidence and sense of responsibility has been noted in volunteers participating in congregate food programs for the elderly (U.S. House of Representatives 1979). Surveys of the elderly themselves indicate that continued involvement in either paid or voluntary work past the traditional "retirement age" can contribute to zest for life, feeling of direct control over life circumstances, and increased self-confidence and self-esteem (Research and Forecast, Inc. 1980; Harris 1978).

The net effect of all these developments is that many elderly people are coming to see full retirement (i.e., inactivity) as undesirable. Perhaps more important than any of these personal factors, however, is the growing realization that the elderly are a vital resource that our Nation can no longer afford to waste.

III. The Present Situation

There is serious concern whether society can afford to continue putting people "on the shelf" purely because of chronological age. The elderly, a great repository of skills and talents, can be used in all kinds of paid and voluntary services. Recent studies have shown that older Americans wish to be active and involved in the mainstream of the community in some way—either through paid full-time employment or volunteer work—because it brings psychological satisfaction and a sense of usefulness. Forced retirement, in contrast, can lead to physical and mental deterioration.

The report, Older Americans: An Untapped Resource, points out that even older people who can live on the income from Social Security, pensions, investments, and other sources often need psychic compensation that comes from regular, meaningful involvement in activities that contribute to society. In recent years, programs that involve older Americans in meeting the needs of their peers have taken hold. Older American Act programs have used volunteers in nearly every phase of their operations, as advocates and in the congregate food program. There has also been growth in self-care and mutual help support systems. It is estimated that 4.5 million Americans over age 65 are now working as volunteers.

The option of maintaining maximum physical and mental functioning by remaining active and contributing to society must be expanded for older Americans. By making better use of this valuable national resource we can simultaneously maintain and promote health, increase life-satisfaction and longevity, and ease the economic strain on our medical resources.

Older Americans: An Untapped Resource notes a lack of effective programs for building a bridge between older people and the public and private organizations that need their services and suggests several ways to correct the situation, including job counseling and placement organizations, skill banks, hiring brokers, and national policy to enlarge work options for older people.

The Health Maintenance and Health Promotion Technical Committee proposes an additional option, namely creation of a National Senior Health Corps to train and utilize older Americans for health maintenance and health promotion activities among their peers. Using the abilities of men and women over age 60 in this way would not only give them dignity and a sense of self-worth, it would enhance their health while allowing them to make a major contribution to unmet needs in the elderly population at large. Furthermore, the high visibility of the National Senior Health Corps, like that of the Peace Corps, would create an inspirational effect that would go a long way toward erasing the negative self-image so prevalent in our elderly population.

There is unlimited potential for involving older persons in peer-level health maintenance and health promotion activities, including health education for maintaining optimal functioning, counseling in special areas (alcoholism, drug use, nutrition, and rehabilitation), and self-care and mutual help in disease prevention and health promotion.

The elderly—a vital, growing, and highly qualified group—can and should be given the necessary training and opportunities to function as paramedical professional personnel for health maintenance and health promotion.

IV. Recommendation

It is strongly recommended that governmental and private resources be combined to create a National Senior Health Corps—a corps of older Americans organized somewhat along the lines of the Peace Corps to serve in health maintenance and health promotion activities. The National Senior Health Corps, involving elderly people from all walks of life and all levels of education, would be distinguished from in-home health providers by serving primarily in peer-level health education, counseling, and outreach including organizing for self-care and mutual help. The goal of the National Senior Health Corps should be to solidify basic self-help mechanisms of the older population, while promoting older persons as a resource.

Participants should be given an initial three to six months of instruction in gerontology under curriculums to be established in institutions of higher learning. Income criteria should not be used in determining eligibility for the training program. Information would be provided on major disease entities where health maintenance and promotion can play a major role, concrete actions that can be taken to reduce risk factors in control of disease, and life-style adaptations to promote better health. The training would place special emphasis on ethnic groups and rural and minority populations and would involve both didactic and experiential training.

After initial training, opportunities would be made available for full or part-time employment or volunteer service, depending on the interest of the individual. Participants would work in community facilities such as hospitals, medical centers, private and governmental community health programs, clubs and meeting places, senior centers, and facilities in the community where older people gather. Integration of these services would be facilitated through the coordination mechanisms of the Area Agencies on Aging, privately-funded volunteer programs, and the community action agency networks.

It is further recommended that several demonstration projects be established to test the validity of the concept and to provide operational guidelines for the National Senior Health Corps.

HEALTH EDUCATION AND THE OLDER POPULATION

A. Judith Chwalow, R.N., Dr. P.H.
Johns Hopkins School of Hygiene

Sidney Epstein, D.D.S.
University of California, San Francisco

Meredith A. Minkler, Dr. P.H.
University of California, Berkeley

I. Introduction

Health education, defined as "any designed combination of methods to facilitate voluntary adaptations of behavior conducive to health" (Green 1980), is vital in any program to help individuals make informed choices about their health. The following discussion stresses the need for a multifaceted and multidisciplinary approach to health education.

II. The Present Situation

There are at least three important target populations for health education of the elderly: the elderly themselves, the health care system, and society. Each population is discussed below.

Target: The Elderly Population

The characteristics of the older population that make health education a preferred strategy include the chronic conditions of later life that require continual coordinated interactions with health providers. The importance of secondary prevention in this population underscores the potential of health education (German 1978). Studies show that the interest of elderly in their health, as well as ample free time, makes them extremely receptive to health education programs.

Dental health education of the elderly is vital in view of their great need for dental care and their disturbingly low rate of utilization of the dental care system (see section on Dental Health). Prevention of oral problems requires a concerted effort by health professionals and educators to communicate the need for preventive treatment and consistent home care. Only through the combined efforts of the dental profession, health educators, and the public will the oral health status of the Nation's elderly improve.

Target: The Health Care System

While the site of health care delivery is the best choice for providing health education, current practice in those sites does not give priority to educational efforts. The importance of provider-patient interaction, communication, and teaching has been well documented, but graduate medical education traditionally has been organized around diagnosis and cure, with the result that health care providers often do not get the satisfaction of a cure when they treat an older patient. These providers need to learn the importance of health education in maintaining the highest possible levels of functioning and avoiding disabilities.

Although 40 percent of acute care hospital beds are occupied by older persons, and the figure is even higher for long-term beds, less than 15 of the 25,000 medical school faculty members in the United States are experts in geriatrics (Butler 1979). Medical textbooks contain little specific information on the needs of the aging. In 1979, only 11 medical schools had required courses in geriatrics (Cunningham 1980).

Schools of nursing have done a somewhat better job of incorporating geriatrics, though much improvement is needed in training nurses to work with older persons whose limitations do not require constant care. The subspecialty of geriatric nursing, defined as "nursing that maintains and augments healthy life among persons who are experiencing primarily age changes as opposed to disease processes" (Benson 1979), has developed over the last 10 years.

Pharmacists are an underused resource in health education and health promotion for elderly clients, who consume 25 percent of all prescription and over-the-counter drugs in the United States. The elderly should be the focus of special concern in pharmacy schools and continuing education programs, with emphasis on the physiology of drug action; common drug interactions in this age group; and drug, nutrition, and alcohol use in the elderly.

Dental practitioners will be called upon to provide more and more preventive and restorative services to their older patients. Dental schools will need to include courses on the oral physiology of aging, as well as courses on the social, psychological, and emotional effects of the aging process.

Research suggests that many health care providers have negative feelings toward elderly persons and indicate little interest in working with them. Therefore, simply "exposing" students to elderly patients without careful planning, comprehensive preparation, close supervision, evaluation, and followup may actually reduce the willingness and ability of students to deal with elderly patients in the future (Kamen 1980). It may be best to have students treat the healthy elderly before they can be expected to understand physically ill older patients (Ettinger et al. 1980).

The health education needs of the elderly have not been given much attention in health education programs in schools of public health, though a graduate speciality in health education of the elderly is under development at the University of California School of Public Health (Minkler and Fullarton 1981).

Target: The General Population

Education of the general population about the potentials of the elderly population and the cost effectiveness of maintaining the highest possible functioning of older people has been extremely limited. There is a pervasive negative feeling about the elderly, complicated by the issue of costs (approximately 30 percent of all expenditures for health care go to the elderly, mostly for institutional care). Only an intensive mass media campaign to educate the public about alternatives to the present situation could be expected to change these perceptions.

Implementing Health Education

Health education programs appear most feasible within the health delivery system, but should be begun with providers whose training, outlook, and objectives are clearly aligned with the priorities and needs of the elderly. Since health education deals with more than diseases and their cure, it is possible that providers other than physicians may provide the best medium for new educational strategies. Educational programs can be developed for specific conditions as well as for daily overall functioning, with emphasis placed on quality of life and independent functioning. Programs can also be designed to educate the elderly in such areas as medication regimens, care of the body, mental health, importance of social activity, and nutrition.

Since little is known about the effectiveness of educational interventions, experimental programs with clearly defined objectives and accurate outcome measures are needed.

III. Recommendation

Health education for the elderly should be made an integral part of the health care delivery system. The elderly are especially receptive to health education, but the greatest obstacle is the prevalent lack of interest in the elderly on the part of health professionals. The Federal Government should allocate funds to stimulate the development of appropriate curriculums in schools of medicine, nursing, pharmacy, and public health.

PART III. SPECIAL ISSUES IN HEALTH MAINTENANCE AND HEALTH PROMOTION

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SPECIAL POPULATIONS OF THE ELDERLY (RURAL, MINORITY, AND WOMEN)

Edna L. Chavis, Ph.D.
Lincoln University in Jefferson City

Meredith A. Minkler, Dr. P.H.
University of California, Berkeley

I. Introduction

Aging can be difficult for many Americans but especially for those who live in rural areas or are members of racial and ethnic minorities. Compared to the majority population, these groups are more likely to suffer from lack of money, inadequate housing, poor education, and a lower level of health maintenance. Minority groups such as blacks, Hispanics, Asian Americans, and Native Americans bear extra burdens of prejudice, language barriers, and inability to obtain health services when they need them. Elderly women also have unique problems in our society.

II. Conceptual Framework

Research on the elderly minorities has been negligible in the past. Data collected in the past on rural elderly, minorities, and women have typically been in aggregate form, providing little information on these specific segments of the population. Fortunately, several investigations have begun to close the knowledge gap.

Demographic studies show that 33 percent of the elderly still reside in the rural pockets of America but are not served by a proportionate number of health professionals. The health of the rural population is poorer than that of populations living in larger towns and cities. The same situation exists for blacks, Hispanics, American Indians, and Asian Americans. There are commonalities between the groups, but there are differences in their health status due primarily to different life styles.

Minority groups have a significantly lower life expectancy: approximately 11 percent of the white population is 65 years of age or older; in contrast, less than 7.5 percent of the black population, 9 percent of the Hispanic population, 7 percent of the Asian American population, and 5.7 percent of the Native American population are in that age group (U.S. Department of Health, Education, and Welfare 1979). This differential arises from historical patterns of discrimination against minorities, who tend to live in blighted inner city areas or very rural communities.

III. The Present Situation

Rural Populations

Contrary to popular belief, rural Americans are quite heterogeneous. Many of them have an existence far different from that portrayed in romantic notions about sturdy, independent farm families and friendly, socially supportive small towns. Reality for the rural elderly is especially grim: in 1970, 81 percent had incomes under $4,000; 30 percent had no automobile; the median value of their homes was $8,000 (National Council on the Aging 1978); more than 20 percent lived in housing that lacked complete plumbing. Thirty-three percent of the rural elderly are below the poverty line, compared with 25 percent in central cities and 17 percent in suburban areas. Almost half of rural households had incomes below $5,000 in 1975 (U.S. Bureau of the Census 1975).

The rural elderly are twice as likely to live in substandard housing. Because their houses tend to be older, repair and heating costs are likely to be significantly higher. Although 80 percent of rural elderly own their own homes, this tends to immobilize them and prevent their seeking a more supportive environment. At the same time they are unable to maintain their homes (National Council on the Aging 1978).

Physical isolation due to great distances, lack of transportation, high fuel costs, and poor roads is common and has been described as "a problem of the first order for the rural aged" (Nelson 1980). Psychological isolation and loneliness are also serious problems. Youmans (1977) has suggested that this is partly due to changing cultural patterns; the elderly, who were born before 1920, were socialized to traditional rural family patterns that provided roles for the aged and valued their knowledge and experience. Those patterns are rapidly vanishing in rural as well as in urban areas. Thus social interaction, so important in maintaining health and lowering susceptibility to disease, is also diminishing.

Most programs that offer social services are designed to operate in high population density urban areas and are not usually adaptable to rural areas. The low population densities of rural areas result in small tax bases and a lack of economies of scale, which in turn hamper delivery of needed services.

Given these facts, it is not surprising that the rural elderly generally are in worse health than their urban counterparts. They have higher percentages of chronic conditions, and those conditions are more likely to be disabling than in urban elderly persons (Harootyan 1977).

In 1973, U.S. Senate hearings on the Special Problems of the Rural Elderly stressed that shortages of health manpower and facilities have become critical, and that although a third of the population lives in rural areas, only about 12 percent of the Nation's physicians, 14 percent of its pharmacists, and 18 percent of its nurses are located there. The doctors who do practice in rural areas tend to be older and less likely to have specialized training.

There is also a severe lack of certified home health agencies in rural areas. In 1976, for example, 54 percent of U.S. counties, most of them in rural areas, had no agencies certified to provide services covered by Medicare and Medicaid. Even in rural counties that had such agencies, people in need were often denied access because of inadequate staffing and resources (Nelson 1980).

Minorities

To be old and nonwhite in the United States is generally much more difficult than to be old and white. Poverty, poor health, lower life expectancy, prejudice, language barriers, suspicion of bureaucratic processes, and difficulty in obtaining needed services create added burdens for the elderly who belong to minority groups.

The number of older minority group members has grown dramatically in recent years. Between 1960 and 1978, for example, blacks 60 years of age and over increased by more than 60 percent compared to 38 percent for elderly whites (Williams 1980). Yet little attention has been paid to the special needs, strengths, attitudes, and health-related problems of older minority group members. The need for increased knowledge about each ethnic group, stressed at the 1971 White House Conference on Aging, still exists. A recent study for the Federal Council on Aging reported a lack of concrete data on the health status and life expectancy of Hispanic Americans and many subgroups of Pacific Asians.

Most blacks and other minorities live in central cities. In 1970 approximately half of elderly blacks 65 years of age and older lived in central cities, 22 percent lived on the fringes of urban areas, and 27 percent in rural areas. Similarly, 50 percent of Hispanic Americans lived in central cities, 20 percent on urban fringes, and 14 percent in rural areas (Harris 1979; National Council on the Aging 1980). This suggests that old minority group members, except perhaps Native Americans, tend to remain in urban areas while their children join the general movement to the suburbs. For family oriented groups like Asians, lack of children in the community may disrupt the traditional role of olders and lead to difficulty in getting assistance. Older black residents of urban communities may also have a strong fear of becoming victims of crime (McAdoo 1979).

Poverty has been cited as the most important difference between minority and white elderly persons (Gilfix 1977). In 1977, 11.9 percent of white heads of households who were 65 years of age and over lived below the poverty line, compared with 36.3 percent of blacks (Williams 1980).

Life expectancy is 60.1 years for black males and 68.3 years for black females, a life span 7 to 8 years shorter than for white males and females. Accurate life expectancy data are not even available on many minority groups, but in 1970 the life expectancies of Native American and Hispanic subgroups were both less than 50 years. The life expectancy of an American Indian at birth is only 45 years.

One consequence of the reduced life expectancies of minority groups is that many of their members pay into Social Security but do not live long enough to collect their share of the benefits. This has led to suggestions that the arbitrary chronological age of 65 be abandoned in determining when Social Security benefits should start and be replaced by functional age and social and economic considerations (Stanford 1977).

Minority group members find many barriers to using Medicare and Medicaid. Programs appropriate to the white mainstream may be unappealing or intimidating to minority group elders, particularly when minority personnel are absent from program staffs. Educational and linguistic barriers may contribute to lack of knowledge about available services or about one's eligibility to receive them. Another barrier is maldistribution of health manpower in the inner cities and other areas heavily populated by minority group members, a problem that has grown worse in recent years. For example, the American Medical Society reports that the number of general practice physicians in the Bronx, New York, dropped from 675 in 1965 to only 233 in 1975, a reduction of 65 percent (Riklaw 1980).

Minority groups have serious health problems, but they also have particular strengths, including a quality in elderly blacks that has been called pride in survivorship (Newquist 1977)—an adaptiveness and resourcefulness resulting from a lifetime of discrimination and survival. The resiliency of blacks and other minority group members who do survive is reflected in a crossover phenomenon in life expectancy beginning about age 75: they begin to have longer life expectancies than whites. Another strength is the close family and friendship ties among older minorities in problem-solving and referral to needed services (Valle 1977). It is important not to overgeneralize on this phenomenon, however—contrary to common belief, only 9.7 percent of elderly Hispanic people live in extended family situations (DHHS 1980).

Unlike other minorities, most American Indians continue to live in rural areas. In the past, frequent disagreement on the results of surveys between the two Federal agencies responsible for collecting data on Indians has made it difficult to develop a reliable profile of the Indian population, now estimated to include 89,000 over the age of 55 (including reservation and nonreservation). Nevertheless, diversities as well as commonalities have been noted among Indians. Some believe that a cultural pattern of withdrawal and disengagement from active participation and adoption of a more passive existence spares elderly Indians some of the psychological stresses of aging, though this is often at the expense of relinquishing control over property. The Administration on Aging indicates that the leading causes of hospitalization of older Indians are circulatory and respiratory problems, accidents, cancer, and digestive and nervous system disorders.

The number of Hispanic people 55 years and older in the United States is now a little over 1 million. Despite the possession of a common language this group is far from homogeneous; it is made up of many nationalities, including Mexicans, Puerto Ricans, Cubans, and Central and South Americans. Many live in the inner cities, have low education levels, poor housing, poor health, and little accessibility to services.

Data on the health of Hispanics are based on only a few surveys with limited samples. These studies show that many Hispanics receive health care at home from a relative or friend because of language barriers, lack of access, and the high cost of medical attention. When elderly Hispanics do consult a physician it is frequently for diabetes, gastrointestinal diseases, arthritis, and hypertension. Like other minority groups, Hispanics express frustration over the lack of culturally sensitive health care services and providers. They also are disturbed by the lack of realization on the part of health providers that all socioeconomic and health statuses are represented in their ethnic group.

Asian Americans include such diverse groups as Samoans, Chinese, Filipinos, Koreans, Hawaiians, Japanese, and Vietnamese, with very different life styles, desires, and attitudes. The 1970 census counted 432,000 Pacific Asians in the United States, but this figure has increased significantly in the past two or three years. Because of their small numbers and the importance of filial piety in Asian families, the plight of older Asian Americans has received little attention. The proportions of the sexes among Asian Americans is the reverse of that in other elderly populations, with elderly men outnumbering elderly women. This is due to the U.S. immigration policies of the past century, which prevented male Asian immigrants from bringing their families. Data on the physical and mental condition of Asian Americans are scarce. There is evidence that services were not sought by this group in the past because many of them feared deportation. The Special Concerns session on Asian Americans pointed out to the 1971 White House Conference on Aging that suicide rates are three times higher among elderly Asian Americans than among whites, and that perhaps a third have never seen a doctor or dentist. For those who do receive help, language barriers and cultural differences may be resulting in inadequate medical services.

Elderly Women

The growing population of elderly women requires special attention. Women outlive men by an average of 8 years. Thus they are three times more likely than men to reside in nursing homes. A very large percentage (77 percent) of the chronically disabled are women. Osteoporosis (loss of minerals from bone) is three to five times more prevalent in elderly women. The leading cause of death for women 40 to 60 years of age is breast cancer. As a group, elderly women have a high consumption of tranquilizers and antidepressants. Since a large proportion of elderly women live alone, they are especially vulnerable to drug and alcohol use resulting from loneliness and stress. Few single women possess the economic resources for adequate health insurance coverage and access to quality mental health treatment programs. New forms of primary care are needed for a continuum of supports for elderly women, including self-help and mutual help efforts, health monitoring programs, and alternative therapies. Special research also is needed to define the health problems and needs of older women.

VI. Trends

The current national mood of retrenchment and curtailment of social programs, coupled with severe inflation and growing indifference to the plight of the less fortunate, creates a bleak outlook for health maintenance and health promotion among special populations of elderly in the coming years.

The economic disadvantages of the rural elderly will worsen in the 1980s. Energy costs are higher in rural areas and are increasing at alarming rates. Employment opportunities are extremely hard to find in rural areas, making it next to impossible to supplement fixed incomes ravaged by inflation. The Rural Development Act of 1972, designed to promote industrial development in rural areas, has been found to have adverse effects on the economic status of the rural elderly (Clemente and Summers 1973).

V. Recommendation

Accessibility of health care services and health education programs for the special populations should be improved, not cut back, and should be made relevant and acceptable to the groups being served. The groups who receive health services should be included in the planning and implementation stages, in order to eliminate language and cultural barriers. The effectiveness of programs and agencies already providing services for the rural elderly need to be analyzed. It may be that new programs are not needed but that a reorientation of existing programs can improve service to this group.

RESEARCH ON HEALTH MAINTENANCE AND HEALTH PROMOTION

Theodore Cooper, M.D., Ph.D., and Susan Bennett
The Upjohn Company

I. Introduction

This report focuses on the need for research to 1) more clearly define the elderly population in the United States, 2) identify the needs of the elderly with reduced function or compensated chronic disease, and 3) stimulate the development of programs to maintain and enhance the productivity of the elderly through preventive medicine and innovative social programs. The emphasis of the report is on keeping the elderly active and happy in a home environment.

II. Conceptual Framework

Scant attention has been devoted to defining the elderly population in the United States and to how the health maintenance needs of the elderly might best be met. Little or no large scale research of this type has been done in the past 40 years, though there have been sporadic indications of interest in Congress, the Administration, the National Institute on Aging, the National Advisory Council on Aging, and others to design health maintenance and promotion programs to benefit the aging. As the number of people in the United States aged 65 and older grows from the present 24.5 million to more than 30 million by the end of the century, it will be even more critical to face these issues.

III. The Present Situation

More demographic, medical, and social data on the elderly are urgently needed to stimulate the creation of biomedical programs that will enrich the quality of life for elderly Americans while utilizing available resources to their fullest. The recently completed 1980 census will provide valuable demographic data, but the questionnaires were not designed to elicit health status and social data relevant to the formulation of health policy (Anonymous 1980).

Research is needed on the best ways to ensure the physical and mental health of the elderly and on the preservation of their social standing (Morrison 1980). When data have been accumulated to identify high-risk groups of elderly and their problems, appropriate systematic screening procedures can help maintain their health so they can continue to participate in their social environments.

The generally less mobile elderly population might reasonably welcome any innovation that could enhance their health care without the inconvenience of leaving home. Postal questionnaires have been suggested as an adjunct to clinical screening (Wilcock 1979). Their success depends on trained personnel to interpret responses and correctly sort out people who need medical intervention for previously undetected diseases from those who need continued lower-level observation.

Interdisciplinary studies can determine the relationship of all the aging processes (Bellamy 1977). Pure and applied research together can yield knowledge of the aging process and on the effects that might be minimized or reversed. Appropriate research relating behavioral and physiological findings to natural changes in the life cycle can establish rational bases for dietary and pharmacological treatments for the elderly population. Biomedical, sociological, chemical, and clinical research are interrelated requisites in the search for answers to diverse questions about the different life spans of specific organisms, the chemical basis of aging, and the alleviation of physical and mental problems of old age.

Researchers, physicians, and policymakers need to change some of their long-held attitudes toward health care of the elderly if research to improve health maintenance and health promotion is to be successful (Poe 1975). This requires better understanding of the needs of the elderly—needs as basic as compassion for their social, financial, and health problems—as simple as patience and acceptance of their diminished physical and mental abilities—and as complex as trying to understand what health means to the elderly. We need to find ways to help the elderly deal with complex programs like Medicare and Medicaid. Adapting the medical and social establishments to encourage the elderly to remain independent will require the concerted efforts of medical and social planners, educators, and legislators.

In providing for better health and health promotion, it is imperative to keep the focus on old people who have reduced function or compensated chronic disease and whose activity and productivity can be maintained and enhanced by preventive medicine and innovative social programs.

IV. Recommendations

1. More research is needed to determine the scope of programs needed to provide food for those who lack it as well as to define the educational needs of the elderly about good nutrition and how nutritional needs change with age.

2. Research should be increased on the action of drugs in the elderly (particularly drug interactions), extending the mobility of the elderly through creative adaptation of technology, involving the elderly to the fullest extent possible in all aspects of everyday life, and developing innovative home health care and homemaker services to enhance independence.

REPORT OF THE HEALTH MAINTENANCE AND HEALTH PROMOTION TECHNICAL COMMITTEE

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ADDENDUM*

In view of the WHCOA's requirement to reduce 500 pages of documentation to approximately 60 pages of final manuscript, there was not space to give adequate recognition to outstanding individuals who provided excellent technical material to the Health Maintenance and Health Promotion Technical Committee and made themselves and their staffs constantly available for guidance and consultation.

Among these contributors were Dr. Robert N. Butler, Director of the National Institute on Aging, National Institutes of Health; Dr. J. Michael McGinnis, Director of the Office of Disease Prevention and Health Promotion, U.S. Public Health Service; and Dr. Lawrence W. Green, Director of the Office of Health Information, Health Promotion, and Physical Fitness and Sports Medicine, U.S. Public Health Service.

The Health Maintenance and Health Promotion Technical Committee is deeply grateful to these men and to many other individuals whose cooperation contributed greatly to our work.

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*This Addendum was voluntarily submitted by the Chairperson of the Health Maintenance and Health Promotion Technical Committee.

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The following Technical Committee Reports have been published:

Retirement Income
Health Maintenance and Health Promotion
Health Services
Social and Health Aspects of Long Term Care
Family, Social Services and Other Support Systems
The Physical and Social Environment and Quality of Life
Older Americans as A Growing National Resource
Employment
Creating an Age Integrated Society: Implications for Societal Institutions
Creating an Age Integrated Society: Implications for the Economy
Creating an Age Integrated Society: Implications for the Educational Systems
Creating an Age Integrated Society: Implications for Spiritual Well-Being
Creating an Age Integrated Society: Implications for the Family
Creating an Age Integrated Society: Implications for the Media
Creating an Age Integrated Society: Implications for Governmental Structures
Research in Aging

Experts from various fields were appointed by the Secretary of Health and Human Services to serve on 16 Technical Committees, each charged with developing issues and recommendations in a particular area for consideration as background material for the delegates to the 1981 White House Conference on Aging.